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After
Fifty Years

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four hundred copies
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which this is

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and is presented to

W. S. Gump & Son

with the friendly
expression of

F. & F. NURSERIES

After
FIFTY YEARS

1882 - 1932



F. & F. NURSERIES

FLEMER HOLDING CORPORATION

Springfield · New Jersey



WHAT a thing are *vistas*, and their younger brother *glimpses*. Artists call it "framing a picture." Wonder why more planting isn't done with that in mind? Note the care with which this picture was studied. A frame of grey-green Arbor-Vitæ. The yellow green of the Weeping Willow reflected in the water and adding interest to the building by half revealing it. The deep rich green of the Taxus. The Hawthorn at the left and a hint of Japanese Cherry at the right. And withal enough grass to give a feeling of freedom and restfulness.

Of Helpful Interest to You

IN the preparation of this book, with you in mind, we have labored diligently to describe the products of this nursery in an honest manner. And for your convenience we have made groupings of them according to the following plan, in order that reference may be easy:

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Half a Century of Looking Further Forward

SOMETIMES I wonder. Wonder just like everybody is wondering today. Wondering what things will be like five, ten, twenty-five, fifty years from now?

Can we come to conclusions about the next half century, based on what this past half has been?

How can we, when you stop to think how fast you and I have seen things happen in just the last ten years. Yes, even in the last two years.

Each day in riding along our nursery roads, or cutting across fields down between the rows, I always see changes. Surprising changes.

Tell me, are they so much actual day-by-day changes, as perhaps what was missed yesterday, is seen today?

It is my belief there are unmistakable daily changes, just as there is constantly going on day by day growth and change in ways of doing business. Changes which you folks and our folks down here must keep in step with.



Half a century ago this F. & F. Nurseries was started. Never in that half a century of existence, have we felt quite so sure of the fundamental soundness of the nursery business in general, and ours in particular, as we do right now. I'll tell you why we feel that way.

Down the road a bit from our office is an outstanding old Revolutionary-time church. It must be crowding on 200 years old.

Up that road on a sunny spring day in 1777 came a Colonial horde of swagger-

ing, confident British soldiers.

Our ragged, half-fed forces were determined those Red Coats should not pass. Just as success seemed assured, wadding for the guns gave out. Our many times outnumbered soldiers started to fall back. There was nothing else to do.

On their way, they met the grey-haired minister of the old church, with his arms full of Watts' hymn books. Tearing out the leaves he yelled: "Give 'em Watts for wadding. Give 'em Watts."

The day was saved. Once again our hard-pressed soldiers had won against unbelievable odds.

Fifty years ago came to this same historic battleground William Flemer. One of your staunch, sturdy types. A descendant from those battling men of Revolutionary days. Here he bought acres and started his nursery.

For years, in clearing and breaking up the ground, relics of that famous battle were uncovered.

Those acres along the river must have one day

been a great gathering spot for the Indians. A savagely contended tribal battle may have been fought here, because we are continually finding Indian arrow-heads. One of the men brought me three beautiful specimens only this morning.

Looking out across these fertile acres, filled with as fine a stock of evergreens, deciduous trees, and hardy plants as suspect you can find anywhere, it has set me thinking.

Thinking back to half a century ago when it was started.

Thinking back of that to the victory our Revolutionary ancestors won here; and the reputation for fine stock and dependable dealings which my father so firmly established.

Thinking of these things, it's hard to conceive how we who are now in charge, can do anything but make the years that follow, fully worthy of those that have gone before.

Am sure you won't object if we now remind you of something.

The something is, that although in this 300 acres we have ample stocks of all the usual things, you will also find here the unusual. Doubt if any other nursery has as many. There is money in them for you.

Won't you be so good as to bear in mind that the entrance to our nursery is just across from the old church? And that a welcome always awaits you.



Koster's Blue Spruce, *Picea pungens kosteri*, used as a high color note among other Evergreens. In such situations it is unsurpassed

Coniferous Evergreens



AS A CHILD, did you and your pals climb to the tops of the tall, pitchy-barked Spruces, and there sway back and forth with the wind, imagining you were a sailor atop a mast? What a thrill that was! What an affection we still have for those trees of the cone-bearing family?

And now you mention their cones, do you recall how the pineapple came to be the symbol of hospitality in the romantic days of the Old South?

No? Well, pine-cones are responsible. In the cooler days of that climate, a basket of pine-cones was always kept by the fireside. When a guest came, a handful was thrown on the fire, to add comfort, but also to token a warmth of hospitality.

It became the custom to put a branch of pine-cones over one's doorway, as a symbol of welcome. The "big rich" introduced the design of a cone in the doorway arch.

Through the years, various wood-carvers modified the cone's shape until it looked like a pineapple. After a while it, and not the pine-cone, was the accepted symbol of hospitality.

Lower Brandon, one of the finest homes of early Virginia's "big rich," has a sure enough cone, and not a pineapple, as the terminating roof-ornament of the central portion, which Jefferson is said to have designed.

Stop and think what today's planting would be without our Conifers. It may sound a bit boastful, but, nevertheless, we are saying right out loud that we doubt if anywhere else you will find an equal, alike in assortment, size, and quality, of the Conifers here in our nurseries. And, of course, their price is right.

ABIES

THE FIRS are lofty forest trees usually found on the slopes of high mountains. Next to the Pines, this family is the richest of all evergreens in the number of species. Firs are spread over all the northern hemisphere, extending as far south as the Himalayas, Asia Minor, and Mexico. The trees are pyramidal or broadly conical, with the branches arranged in regular whorls or layers. The polished leaves or needles are closely set along the twigs and branchlets like stiff green bristles and are persistent for many years.

In their young state the Firs are most useful and beautiful trees for landscape planting and gardens, but because of the tendency of the lower branches to die as the trees mature, they are usually more effective when planted at a distance, particularly in large masses where eventually they may develop into woods or forests. All Firs suffer from the artificial conditions of city gardens and more resistant trees should be chosen for such locations. They are at home in the open country and on high hills or mountain slopes where they have plenty of sunlight, fresh air, and all the space they need.

Abies concolor

The White Fir is a native of western North America, extending from Colorado to southern California and northern Mexico. It was brought to the East in 1872, and has proved to be the most satisfactory of all the North American Firs in cultivation in the United States, and better able to withstand drought, heat, and the smoke and dust of cities than any other evergreen of its type. In 1891, a traveler who saw the White Fir in Colorado for the first time, wrote enthusiastically that *Abies concolor* was the Queen of the Firs. He went on to say:

"No other tree has such a rich variety of color. The Blue Spruce is often beautiful while young, but this Fir holds its color in age. One often sees a grove of these trees with their silver gleaming miles away. Some groups of them have a very deep color covered with a plentiful silvery frosting so as fairly to sparkle. The new shoots are of soft light green. The older growth is nearly blue. On one tree, the blossoms and cones will be purple; on another, light green. The clear gum exuding from the cones flashes like pearls, and when a light breeze puts all this beauty in gentle motion, it is a scene worth journeying across the continent to see."

Abies homolepis

The Nikko Fir, sometimes called *Abies brachyphylla*, comes from the mountains of Japan, where it grows to be a massive, bulky tree, different from all other Firs in its broad, rounded top. This peculiarity is achieved in its maturity by the tendency of the upper branches to grow longer than those close to the ground. Young trees rapidly make broad-based, sturdy specimens. The outspreading branches are thickly crowded with long, lustrous needles curled upward, showing their silvery under sides in the breeze. The Nikko Fir is a picturesque tree for bold landscapes, and will rarely exceed an ultimate height of 80 to 90 feet.

Abies homolepis umbellata

This is generally similar to the Nikko Fir, the chief botanical difference being in the cone, which in the Dimple-cone Fir is bright green and shorter. The young plants in the nursery are quite distinct as the leaves and needles are very much broader, sharper, and more rigid than in the Nikko Fir. Neither is it as well clothed with foliage, so that it gives a somewhat bolder effect, although it is not so desirable as its type.

Abies nordmanniana

The Nordmann Fir comes from the Caucasus and southwestern Asia. It was introduced to Europe about 1840 and to North America a few years later. Here it has proved perfectly hardy in southern Ontario and New England. In its native state it is said to grow 150 feet high, with a trunk 5 to 6 feet in diameter. In this district it grows rapidly, forming a narrow, pyramidal, densely branched specimen with dark green foliage, silvery on the under side.

Abies veitchi

According to Dr. C. S. Sargent's account, Veitch's Fir was sent to the Parsons' Nursery at Flushing, Long Island, nearly eighty years ago by Thomas Hogg, who found it on the slopes of Fuji-san in Japan, and it was cultivated in America under the name of *Abies japonica* before it was taken to Europe by the Veitches. It is hardy throughout eastern United States, and makes a handsome dark green tree of broad, conical habit, seldom rising more than 80 feet tall.

ARBOR-VITÆ. See *Thuya*.

BIOTA. See *Thuya orientalis*.

CEDRUS

THE NAME of this family is derived from a word which the Greeks used for certain evergreen trees. It is not really true to say that *Cedrus* includes all the true Cedars, since the Greeks, knowing nothing of our botanical classification, included under this name many trees which are outside the botanical limits of

this genus. Historically many of the Junipers are justly entitled to this name. However, the few species of *Cedrus* are acknowledged universally as Cedars, and the type of the family is the famous Cedar of Lebanon, from the wood of which Solomon's temple was built. The Cedars are natives of northern Africa and southwestern Asia, and are only sparingly hardy in the colder parts of America. Because of their genuine beauty and historic association, Cedars are worth trying in sheltered locations farther north than they are generally thought to succeed, and, fortunately, a hardy strain of the Cedar of Lebanon has been obtained which thrives in the vicinity of Boston.

Cedrus atlantica glauca

The Blue Atlas Cedar is a hardy form of the Atlas Cedar of Algeria which succeeds in sheltered positions as far north as Massachusetts. It has silvery blue foliage and forms a wide, spreading, conical tree with sweeping branches of much grace and dignity.

Cedrus libani

For many years, the Cedar of Lebanon failed to live in northeastern United States. Although it had been grown in Europe for nearly three hundred years, it was found impossible to succeed with it in America north of Philadelphia. Through the efforts of the Arnold Arboretum, seed was collected from trees on the highest mountains in the coldest part of western Asia, and from those seeds a hardy race of the Cedar of Lebanon was introduced in 1904. Fortunately, we were privileged to secure some wood from these hardy trees. This historic and half-sacred tree now succeeds in fairly good soil in almost any location in eastern United States. Aside from its sentimental associations, it is a beautiful and dignified tree which attains considerable dimensions in cultivation and is well worth planting throughout the eastern states.

CHAMÆCYPARIS

MANY of the ornamental evergreens belonging to this genus are commonly known as *Retinosporas*, an incorrect and discredited name founded years ago upon a misconception. Accuracy in plant-names is becoming more and more desirable, and we deem it wise to conform to authority in that respect. Consequently, under *Chamæcyparis* will be found most of the plants formerly called *Retinosporas*. The common name of these trees is Cypress, although the true *Cypresses* are members of the

genus *Cupressus*. But the famous Cypress of the southern states does not belong to *Cupressus*; it is part of the genus *Taxodium*. Thus, we see that the common names of evergreens are a snare and a delusion. Many junipers are called cedars, many of the firs masquerade as spruces, and almost anything may pass for a pine in common speech.

The plants belonging to *Chamaecyparis*, in their natural forms, are usually trees of considerable height and valuable for timber. But most ornamental garden forms have been propagated from the juvenile stage of their growth and, in consequence, bear abnormal foliage and are relatively dwarf. Many of the most decorative small ornamental trees belong to this family, affording a generous variety of texture and color of foliage, and difference in shape. The family abounds in delightful shrubby evergreens which can be adapted to almost any garden use.

These Cyprresses are greatly benefited by annual or semi-annual shearing in order to encourage dense, compact foliage, and to keep them within proper shape and stature. In ornamental plantings, it is wise to reserve the more sheltered situations for them. They have been propagated for so many generations from juvenile or immature parents, in order to preserve their characteristic foliage and habit, that they are likely to deteriorate rapidly unless given good care. For exposed situations and places where rougher treatment is imperative, it will be better to rely upon juvenile forms of junipers and arbor-vitæ, many of which are very closely similar.

Chamaecyparis obtusa

This is the sacred Shinto Cypress of Japan, called Hinoki. The temples of the Shinto faith are all built of its wood, and it is much planted in the temple grounds. In central and southern Japan the lumber is commonly used for building palaces of wealthy nobles and temples of various faiths. It is one of the favorite subjects used for the famous Japanese dwarf trees, and many thousands are cultivated in tiny pots to a great age. The Shinto Cypress was brought to America in 1862 and has proved hardy in New England. In its native country it soars to 120 feet, with broad, horizontal branches, but the varieties in American commerce are dwarf, slow-growing, shrubby trees 15 to 20 feet high, with lustrous dark green foliage.

*"The trees were God's first temples
Before the hand of man
Hewed the architrave
Or streched the span."*

W. C. BRYANT

Chamaecyparis obtusa compacta

The Football Cypress is a loose, round little shrub about 3 feet high, sometimes a little more, with thickly packed branchlets ascending from the root and foliage of rich dark green which keeps its color through the winter. It is much used in foundation plantings and in formal designs.

Chamaecyparis obtusa crippsi

Cripp's Golden Cypress is a bright yellow form of the Hinoki or Shinto Cypress—a little dwarfer and slower in growth than the type, and very useful for providing color relief in an evergreen planting. Among the yellow evergreens this stands out as a most worthy form.

Chamaecyparis obtusa filicoides

The Fern Spray Cypress is a peculiar, slow-growing, little tree with frond-like branches gracefully outspread, covered with light green feathery sprays of squarish branchlets. Useful chiefly for rock-gardens or where variety of detail is needed.

Chamaecyparis obtusa gracilis

The Slender Hinoki is a small, pyramidal tree of compact habit, with

Cypress



LONG in February happened to be sojourning in Mexico, looking up some interesting trees with the idea of introducing some in our nursery as a try-out.

Coming home, veered off by way of Santa Maria del Tule and saw what scientists say is the oldest living thing.

It is a huge Cypress, reckoned to be at least 5000 years old. When Christ was born it had already been standing for 3000 years. It is 160 feet around and the same in height. Seventeen of us stood side by side and covered only a small part of it.

When Napoleon was marching by the pyramids he said to his soldiers: "Thirty silent centuries are looking down on you."

In standing by that old Cypress at Tule, you are in the presence of fifty centuries of life. Not the dead stonework of the pyramids.

We have a considerable number of Cypress in our nurseries that might well be descendants of that old patriarch. Whether or no, they are fine stock, a certain number of which you might induce us to part with at a fairish price. Fair to you and fair to us.

dark green blackish foliage and drooping branchlets of picturesque aspect. Its slow growth is a valuable quality for formal, ornamental purposes. This seems to be the hardiest form of this type and is certainly the best for general use.

Chamaecyparis obtusa gracilis aurea

A very handsome little tree of graceful form, with bright yellow foliage in the spring, later changing to greenish yellow. It is one of the most dependable of the "golden" evergreens for providing variety in color effect.

Chamaecyparis obtusa gracilis compacta

We imported this pyramidal form of *gracilis* from France several years ago, and believe it is different from any other form offered in America. It has a curious, "Japanesque" appearance with small, closely packed foliage and branchlets. Would like to get some authoritative information on this unusual plant.

Chamaecyparis obtusa lycopodioides

The Club-moss Cypress is a low, irregular shrub with stiff, wide-spreading branches and thick, round branchlets crowded with tiny leaves. It takes its name from the resemblance of its foliage to the club-moss or *Lycopodium*.

Chamaecyparis obtusa magnifica

This is a stout, fleshy-branched type with lustrous, bright green foliage throughout the winter, and of notable vigor and swift growth. It will somewhat exceed other varieties of this species in mature dimensions and is useful for quick effects.

Chamaecyparis obtusa nana

A charming low shrub of slow growth, with short, curiously twisted, dark green branchlets. This is the slowest, densest-growing form of all and is most useful in rock-gardens.

Chamaecyparis obtusa youngi

Young's Golden Cypress has a loosely branched, bushy habit, with the tips of the branchlets gracefully bent. The whole plant is tinged with greenish yellow and assumes bronzy tints as the season advances. It is slightly taller than Cripp's Golden Cypress, and not as bright yellow.

Chamaecyparis pisifera

The Sawara Cypress abounds in the forests and temple grounds of Japan. It was introduced into Great Britain in 1861 and came to America the following year. Hardy as far north as southern Ontario and New England, it makes fairly rapid growth, with horizontal branches turned up at the ends. In America, it attains a height of 25 to 35 feet, but in Japan, trees 100 feet tall and more are common. It varies into many varieties of great ornamental merit. The foliage is arranged in flat, fan-like branchlets in horizontal planes, twisting beautifully at the tips, like the fiddle-heads of some woodland ferns.

Chamaecyparis pisifera aurea

The handsome Golden Sawara Cypress differs from the type in the bright yellow color of its spring foliage. It is a quick grower, and its branches become pendulous in age, making a very ornamental tree for interspersing with green and grayish evergreens of other types.

Chamaecyparis pisifera filifera

The Thready Cypress is an exceedingly graceful form of the Sawara, with long, stringy, drooping branchlets of bright green, and is certainly one of the most remarkable, pendulous-branched conifers. It will quickly grow 15 to 20 feet high, and is very useful and ornamental in sheltered situations. Its temper is capricious, but its great beauty makes it decidedly worth while, and it generally flourishes luxuriantly for many years.

Chamaecyparis pisifera filifera aurea

The Golden Thready Cypress is similar to *filifera*, but a little less rapid in growth and seldom exceeds 10 to 12 feet in height. The tips of the new branchlets are bright golden yellow, which makes a glittering high-light in small ornamental plantings.

Chamaecyparis pisifera filifera nana

The Dwarf Thready Cypress is a tiny, Japanesy bush with short, twisted branchlets curiously distorted into a grotesque appearance. It is a particularly good plant for rock-gardens.

Chamaecyparis pisifera filifera aureo-variegata

The foliage of the Variegated Thready Cypress has an interesting, speckled appearance, dotted and mottled yellow and green. It is not quite so graceful as other forms of *filifera* because the branchlets are shorter and less thread-like, but the outline is more billowy and rugged looking.

Chamaecyparis pisifera plumosa

The Plumy Cypress is an intermediate form of *pisifera*, with foliage midway in development between *filifera* and *squarrosa*. It has slender, almost erect branchlets of feathery appearance, bearing tiny, needle-like, bright green foliage. The habit is conical, forming specimens of dense texture when sheared into formal shape. The Plumy Cypress will reach 25 to 35 feet when mature, and is one of the most useful ornamental evergreens.

Chamaecyparis pisifera plumosa aurea

The Golden Plumy Cypress does not grow so big as the type, reaching only 20 to 25 feet in height. The foliage is warm yellow. We have propagated only plants of good, uniform color and habit.

Chamaecyparis pisifera plumosa lutescens

The Dwarf Yellow Plumy Cypress forms a broad, dense bush 2½ to 3 feet high, with bright green foliage tipped with sulphury yellow.

Chamaecyparis pisifera plumosa nana

The Dwarf Plumy Cypress makes a neat, little shrub about 2 feet high which is very useful for rock-gardens and foundation plantings.

Chamaecyparis pisifera squarrosa nana

This Dwarf Mossy Cypress is wrapped in woolly blue-gray foliage and feathery branchlets. It is a most attractive dwarf evergreen of slow growth, and very useful for rock-gardens and low borders. Shade it from hottest sun.

Chamaecyparis pisifera squarrosa sulphurea

A little tree similar to Veitch's Cypress in habit and stature, but has foliage slightly tipped with yellow.

Chamaecyparis pisifera squarrosa veitchi

Veitch's Mossy Cypress is a very remarkable variation of *pisifera*, with short, needle-like, pale blue-green leaves, all disposed in pairs, and slightly bent toward the branchlets. The plant makes a broad bush or small tree of soft, woolly appearance. In age, it attains an approximate height of 25 to 30 feet, with many large, divided, and forked stems, having a picturesque dignity.

CRYPTOMERIA

CRYPTOMERIAS are a noble race of evergreen trees in Japan. There is only one species in the family, *Cryptomeria japonica*. One of the most famous sights in the world is a long avenue of gigantic Cryptomerias leading to the famous Nikko temples of Japan. Away from its native islands, the homesick Cryptomeria sulks and never makes a large tree, developing a curiously twisted and grotesque habit as it ages. But young plants have a charming aspect, assuming shapes that are formal and attractive for all ornamental purposes in the garden.

Cryptomeria japonica dacridoides

This is a loose, broadly conical tree with wide-set branches drooping at the ends, covered with close, prickly leaves of brownish green.

Cryptomeria japonica lobbi

Lobb's Cryptomeria was brought from Java in 1845. It makes a narrow, irregular column of dark green foliage changing to bronze in winter. This odd and attractive evergreen is useful for specimens or accent points in formal plantings. It prefers a moist but well-drained situation, and should not be planted too far north or it may suffer from sunburnt foliage in winter. In an instance to our knowledge, this Cryptomeria has been used most effectively to take the place of native cedars which gradually succumbed to civilization. It will lend dignity and character to almost any evergreen planting.



Junipers and other Evergreens capably employed in a charming planting

JUNIPERUS

THE JUNIPERS constitute one of the most widely distributed families of trees on the face of the earth. The thirty-five to forty species range from the Arctic Circle to Mexico and the West Indies, and, in the eastern hemisphere, from Siberia to the mountains of eastern Africa. This tremendous distribution affords opportunity for wide variation in their habit and power of resistance to cold and drought. But the family is even more Protean than that. Some of the species are incredibly variable and may bear two kinds of foliage on the same plant or at different times of life. It is an almost unbroken rule in the Juniper family that the leaves of young trees are entirely different from those of their elders. This peculiar juvenile foliage has been transmitted, fixed, and propagated by grafting and selection until many curious and beautiful types of Junipers have been evolved, whose relationship to normal members of the family is scarcely apparent. Some of these odd little trees used to be called *Retinosporas*, and all of them resemble similar juvenile forms of *Chamæcyparis*.

Juniperus chinensis

The Chinese Juniper is perfectly hardy throughout eastern United States. It is spread naturally over a wide area in eastern Asia, extending from the borders of Tibet to Japan, where it grows into a shrubby tree 30 to 40 feet high, with straggly, twisted branches and gray-green foliage. Dr. Sargent tells of two venerable Chinese Junipers, 70 to 80 feet high, with hollow trunks 6 feet in diameter, which he saw in a Japanese temple garden. While the Chinese Juniper somewhat resembles our native Red Cedar, it exhibits curious differences between the cone-bearing and staminate forms. The male plant usually has erect, very finely divided branchlets, with needle-like leaves grouped in three's, while the female plant has longer branches with scale-like leaves closely pressed against the branchlets in pairs. Even stranger than this, both kinds of foliage are sometimes found on the same tree, and in the Far East, ancient, mature specimens exhibit only the female characteristics. Here we can count on the Chinese Juniper making a fine grayish column 15 to 20 feet high.

Juniperus chinensis albo-variegata

The White-leaved Chinese Juniper grows only 6 to 7 feet high, and has remarkably pretty creamy white branchlets interspersed among the gray-green foliage of the type. It naturally grows into a formal pyramid, and is useful in low plantings for variety of color.

Juniperus chinensis columnaris

A selected form of the type, the Columnar Chinese Juniper makes a slender, tapering spire 15 to 20 feet high, clothed in soft gray-green foliage. This rapid-growing Juniper is, undoubtedly, the best substitute for our native cedar, which does not take kindly to cultivation. No other plant will form a narrow column of green as quickly, but it is most effective when sheared annually for the first three or four years to make it dense.

Juniperus chinensis columnaris viridis

This is a light, brilliant green form of the Columnar Chinese Juniper. It is used to afford color relief in grouped specimens, and is somewhat slower growing and broader at the base than the type.

Juniperus chinensis fortunei

Fortune's Juniper is one of those mysterious plants which has suffered by misnaming and misunderstanding. The variety we grow under this name is a distinct, broadly pyramidal tree of loose, attractive habit very different from other forms of *chinensis*.

Juniperus chinensis japonica

The Japanese Juniper came to America in 1862. In three-quarters of a century it has adapted itself to American conditions and has proved to be one

of the hardest dwarf evergreens for our North American gardens. It is a slow-growing shrub 3 to 4 feet high, with somewhat spreading branches and dark green, scaly leaves. It makes sturdy little specimen bushes and is well adapted to large rock-gardens and foundation planting.

Juniperus chinensis japonica aurea

The Golden Japanese Juniper develops into a handsome little shrub similar to the Japanese Juniper in habit, clothed with warm, bright yellow foliage.

Juniperus chinensis japonica aureo-variegata

The Variegated Japanese Juniper is a similar type, except that the golden yellow foliage is partly mixed with green.

Juniperus chinensis neaboriensis

The Conical Chinese Juniper makes a tight, narrow, cone-shaped tree 7 to 8 feet high, with both scale-like and needle-like leaves. It is a useful accent plant, resistant both to drought and cold.

Juniperus chinensis oblonga

Throughout the southern states this interesting Juniper is called *Juniperus chinensis sylvestris*. It is a broadly irregular pyramid of feathery branches, 7 to 8 feet high. The grayish, spiny foliage is tinted with lavender and purple during the winter. This, with Fortune's Juniper, deserves much wider popularity for general evergreen planting than they enjoy.

Juniperus chinensis pfitzeriana

Pfitzer's Juniper is a justly popular and a remarkably handsome plant. It makes a spreading bush of several slanting, plume-like branches, diverging in different directions, covered with dense, feathery, gray-green foliage. Its open, spreading appearance gives it a character different from other evergreens, and it has been found useful in massed plantings for picturesque effect. The remarkable ability of this evergreen to resist drought, gas, and smoke is a rare and valuable quality which is worth remembering when considering a garden or landscape planting in difficult suburban or city areas.

Juniperus chinensis sargentii

Sargent's Juniper was brought to this country by Dr. C. S. Sargent in 1892. He found it in northern Japan, Saghalin, and the Kurile Islands, where the rocky ground is covered by its broad, dense mats of creeping stems, with scaly bluish green foliage on mature plants, and gray-green, needle-like leaves on juvenile forms. It is a very useful ground-cover and rock-plant for difficult situations, and is seldom more than 2 feet high. Will not tolerate shade.

Juniperus communis

The Common Juniper is distributed widely over the whole northern hemisphere. In America it grows from Greenland to Nebraska and down the Rocky

Mountains into Texas and Arizona, extending up the west coast as far as Alaska. While it is a tree which sometimes reaches 40 feet in height in Europe and Asia, it is usually a broad, spreading shrub on this side of the world, making patches several yards across, but only 3 to 4 feet high. In gardens, it is a flat-topped or vase-shaped shrub with spiny, dusty green foliage. It is particularly effective in combination with upright forms.

Juniperus communis aurea

The Golden Juniper is a dwarf, mat-like shrub 12 to 18 inches high, with bright golden yellow foliage in the spring. This plant requires considerable care in transplanting to avoid loss.

Juniperus communis canadensis

See *Juniperus communis depressa*.

Juniperus communis cracovica

The Polish Juniper grows as a robust, hardy plant with abundant foliage and stiffly erect branches slightly drooping at the tips. It makes a compact, slender spire of light green foliage 4 to 5 feet high.

***Juniperus communis depressa* {*canadensis*}**

The Prostrate Juniper develops into a low, broad-topped, vase-shaped bush 3 to 4 feet high, with dark bluish green foliage. We find it is a very hardy and useful shrub for mass planting. It seems practically drought- and frost-proof throughout eastern United States.



Sargent's Juniper, *Juniperus chinensis sargentii*, happily placed

Junipers



DID the bigger boys fool you that way too? Did they tell you that a certain hillside of those wild, tallish shaped Junipers was an ancient Indian burying-ground?

Did they fill you full, still further, and claim they planted those prickly trees because they figured no one would care about disturbing them?

You can't say much yourself about those yarns because, more than likely, you in turn told the smaller boys the same whoppers.

The thing I particularly like about the Juniper tribe is that they took the time and pains to develop themselves, so there is one kind or another for every place and purpose.

They will grow lying down, or standing up in tall green columns, and be as happy one way as the other. A very likely family are the Junipers. And we have all the likely ones in goodly number.

If you should happen to want some of them, it is the general impression hereabouts that we might go so far as to part with some.

Juniperus communis hibernica

The Irish Juniper restricts itself to a slender, spire-like column 7 to 8 feet high, with dark blackish green foliage. While it is a favorite garden plant, much seen in old gardens and landscape work, it is not as hardy in severe climates as the Swedish Juniper.

Juniperus communis montana

When seen in company with rock-masses, it is difficult to restrain one's enthusiasm for this Mountain Juniper. Rarely does it grow more than 18 inches high, but the horizontal branches spread out surprisingly, making a perfectly flat mass often 6 feet in diameter. The cheerful green foliage clothes the branches to

*"The Birch-tree swang her fragrant bair,
The bramble cast her berry,
The gin within the Juniper
Began to make him merry . . ."*

TENNYSON

such an extent that none of the woody structure of the plant is seen. For covering large, open areas it is unsurpassed.

Juniperus communis suecica

While similar to the Irish Juniper, the Swedish Juniper has lighter foliage and makes thicker growth. It will form an erect, compact, spire-like tree 18 to 20 feet high. Is perfectly hardy and safe to use in severe climates where formal, pyramidal garden effects are desired.

Juniperus communis suecica nana

The Dwarf Swedish Juniper forms a compact, slow-growing bush seldom exceeding 3½ feet. It is good for foundation plantings and rock-gardens where its bright green foliage is a year round delight.

Juniperus excelsa stricta

Standing stiffly erect, the Spiny Greek Juniper makes a compact, needle-like tree with gray-green foliage. It is useful for formal accents and is frequently used in window-boxes, tubs, or pots at gates, doorways, and entrances to gardens. The unusually fine root-system characteristic of this plant enables it to withstand transplanting almost with impunity. It is, however, susceptible to the pesky red spider, but this is easily controlled by an occasional dusting of very fine sulphur dust.

Juniperus horizontalis

The Creeping Juniper is a dense, crawling shrub with flat, scale-like, overlapping leaves of grayish green. The irregular tips of the branches sometimes ascend as high as 2 feet, and it makes an excellent ground-cover or rock-garden plant where there is room enough to allow for normal spread.

Juniperus horizontalis alpina

See *Juniperus horizontalis glauca*.

Juniperus horizontalis, Bar Harbor

We consider the Bar Harbor Juniper is the finest of all the creeping forms. It grows freely from the center, bending over to hug the ground with a handsome velvety mat of gray-green foliage. In the autumn it assumes delicate hues of slaty lavender and metallic purple. The original plant was discovered at the high-tide mark on the shore at Bar Harbor and its descendants have kept its perfect prostrate habit, which makes it so valuable for ground-cover use and fairly large rock-gardens. We recommend it highly.

Juniperus horizontalis douglasi

The Waukegan Juniper has distinctly handsome, steely blue foliage clothing its long, trailing branches, which assume a deep purple tinge in the winter. It makes a splendid ground-cover 1 to 1½ feet high, and a handsome ornament in the rock-garden, especially striking in winter.

Juniperus horizontalis glauca

The Blue Creeping Juniper is an improved form of common Creeping Juniper, of denser, neater habit, and with foliage of pleasing steel-blue which turns purple in winter. This should supersede the old form.

Juniperus horizontalis plumosa

New and exceedingly hardy is the Plumy Juniper, a shrub almost 2 feet high when mature, similar in habit to Pfitzer's Juniper, but more dwarf and compact. The silvery green foliage becomes tinged with lavender and lilac in the autumn, affording an interesting color relief among other evergreens, with its soft, almost woolly texture.

Juniperus hudsonica

A distinct procumbent habit characterizes the Hudson Juniper, which is a scarce, hardy variety with fine, feathery foliage tinged bright metallic purple in winter. It has an even, dense habit and makes a good rock-garden plant.

Juniperus sabina

The Savin is a variable plant native to the northern parts of America where it forms dense, dark green mats which look particularly well on rocky slopes or sandy banks where it may grow 3 to 4 feet high. In more favorable locations and farther south, it sometimes makes an irregular, vase-shaped bush as much as 6 feet tall. It is a specially good color in the winter.

Juniperus sabina tamariscifolia

Seldom more than 18 inches high, the Tamarisk Juniper forms a flat, wide-spreading ground-cover, of soft, feathery texture, and a splendid color during the winter.

Juniperus squamata

The Scaly Juniper came from the western Himalayas and has proved to be a low, prostrate shrub with flat, bluish green foliage clinging loosely to the dense, upturned branchlets. Few evergreens have such consistent coloring as this, and it does not grow "out of hand."

Juniperus squamata meyeri

Named in honor of F. N. Meyer, who introduced this Juniper from China in 1914, since when it has jumped into popularity like a "Hollywood Star." It is a handsome thing, quite unlike any other bush conifer. A number of unequal branches ascend from the roots and send out numerous stiff branchlets which



Evergreens effectively used among rocks. *Pinus mugbus* at the right of the steps and *Pieris japonica* half-way up are particularly happy incidents

give the plant an unusual and interesting outline and rather coarse texture. Long, rather fleshy leaves persist almost indefinitely and entirely clothe the branchlets with a distinct silvery blue covering which in winter is tipped with a faint tinge of lavender. Eventually it attains 4 to 5 feet in height, when it would be almost as broad but quite irregular, as rarely is a central leader formed.

Juniperus squamata variegata

An interesting, low, creeping Juniper of silvery green speckled with white shoots irregularly placed along the branchlets. Quite similar in all other respects to the type.

Juniperus virginiana

The Red Cedar is a peculiarly American tree and the most valuable and interesting of all the Junipers. It is enormously variable in the vast territory which it covers in eastern North America, in some locations achieving the noble height of 100 feet. In northeastern United States it seldom exceeds 30 to 40 feet, and, as generally seen, it is much smaller. The early settlers thought so much of the Red Cedar that it was taken back to England before 1660. There is no exotic tree comparable to it for dependability in the decorative field which it fulfils in gardens. In its most familiar form it is much employed for tall, columnar accents or screens, a use to which it is peculiarly fitted because it holds the lower branches pressed upward toward the trunk. With proper care it retains this character many years but, when left to itself, eventually the top branches out, and becomes an irregular, picturesque head. In the North, the lower branches frequently die away, leaving the knobby, characteristic tops which are familiar on hillsides and by forgotten roads.

The Red Cedar is a well-known, well-loved tree. The fragrance of its wood protects treasured articles from the moths in thousands of homes, and rises from the chips of every pencil we sharpen. Because of the adaptability and the ease with which it grows, it is usually the backbone of all formal plantings in new gardens, and is easily the most generally satisfactory evergreen which can be freely used in narrow quarters with the assurance that it will not overgrow its space too soon.

Juniperus virginiana albospica

The White-tipped Cedar is less robust than its parent, the Red Cedar, seldom exceeding 10 to 12 feet in height, but is very conspicuous because of the silvery white branches interspersed among its otherwise dark green foliage.

Juniperus virginiana bedfordiana

While the Bedford Cedar has long been known and admired, its true classification is still in some doubt. Recent authorities assign it to a southern species, *Juniperus lucayana*, and consider it a form of the native Florida Juniper. It is also known as *Juniperus virginiana gracilis*, and is distinguished by slender, slightly weeping branches and brilliant green foliage. It prefers a sheltered location, a fact which lends plausibility to its assumed southern origin.

Juniperus virginiana burki

Presumably named after a Mr. Burk—but apparently this Burk's Juniper has not been recognized by horticultural authorities—which is a pity. To us it is quite distinct and most certainly worthy of a place, for in some respects it is superior to the Silver Cedar, which it resembles in color. During the winter, however, the whole plant is flushed with a silvery purple. The upright, branchy habit results in a well-formed, dense column that needs practically no shearing. Without reservation, we say this is a good plant.

Juniperus virginiana cannarti

Cannart's Cedar is the aristocrat of American Cedars. At maturity it forms a narrow column of blackest green, broken with surprisingly dark shadows made by the short branches. In autumn this mantle of green is emphasized by numerous bloomy blue fruits or berries, when there is scarcely another evergreen as attractive. It dislikes any formal shearing, preferring to assume naturally its inherent dignity.

Juniperus virginiana elegantissima

The Gold-tipped Red Cedar makes a slender cone of bright green, speckled all over with bright yellow tips at the ends of its branchlets. It is a very ornamental variety about 15 feet high when mature, and is especially handsome in bronze tones through the winter.

Juniperus virginiana fastigiata

This fastigate Red Cedar is a more compact tree than the Columnar Red Cedar (*Juniperus virginiana pyramidalis*), with many more bushy branches, and dark, bluish green foliage. This is not the same variety as *Juniperus sabina fastigiata*.

Juniperus virginiana glauca

The Silver Cedar has achieved popularity because of its narrow growth, 15 to 20 feet high, covered from top to bottom with a mist of silvery blue-gray, scale-like foliage. Its frosty hue makes an interesting relief from the dark shades of other evergreens.

Juniperus virginiana globosa

A natural dwarf type, the Globe Cedar develops into an almost perfect sphere without shearing. Under good care it becomes very dense and compact and can be kept about 3 to 4 feet high and as much through. It is a very hardy and useful plant for accents where formal appearance is desired without too much trimming and fussing.

It happens that we have a particularly fine lot of this virginiana. Not just a few specimens mind you, but a goodly quantity for extensive plantings.

Juniperus virginiana keteleeri

Keteleer's Cedar has a compact, formal outline, making a thick, dark green pyramid eventually reaching 15 to 18 feet high with a base 4 to 5 feet in diameter. The branchlets, disposed regularly along the branches, are more fleshy than in most Junipers. Like the Cannart Cedar, it is particularly handsome in fruit. These slaty blue berries are so large (sometimes over half inch in diameter) as to be immediately noticeable, and should be good material for Christmas decorations.

Juniperus virginiana kosteri

Koster's Cedar is a bushy, spreading plant about 3 feet high, rather like Pfitzer's Juniper in its grayish foliage and plummy branches, but lower.

Juniperus virginiana pendula

An erect tree reaching 8 to 10 feet, the Weeping Cedar, as it ages, develops a handsome, pendulous habit, quite irregular, yet graceful in lines.

Juniperus virginiana pyramidalis

The Columnar Red Cedar is a selected, densely compact tree of cylindrical habit, reaching 20 to 30 feet high. It is one of the best evergreens for formal planting especially useful for achieving architectural effects of great stateliness and dignity, without the lifelessness and rigidity of clipped, topiary work. We predict a great demand for the plant when it becomes more widely known.

Juniperus virginiana schotti

Schott's Red Cedar is a relatively small, compact, formal column of bright, glittering green, keeping its color excellently through the winter. It seldom exceeds 15 feet in height, is amenable to shearing, but dislikes frequent transplanting.

Juniperus virginiana smithi

Smith's Juniper is a hardy and distinct tree of bushy, open habit, reaching 8 to 9 feet, covered with a thick mantle of light grass-green foliage.



Ornamental Evergreens soften the base line of this residence



Dwarf Alberta Spruce, *Picea canadensis albertiana conica*. A lovely midget tree of great value

PICEA

LIKE the firs and pines, the Spruces are forest giants native to the hills and mountains of the northern hemisphere. The family is characterized by flattish, needle-like leaves that remain on the tree for many years. Its cones are borne at the tips of the branches and hang downward. *Picea* produces some of the most valuable timber in the world, and among the members of this family are found handsome and enduring trees for parks and large estates. They like a moist but well-drained soil, and do not thrive in dry, sandy regions as well as pines. Generally, they are more graceful and long-lasting than firs, and healthy specimens will retain their lower branches forty to fifty years. The name *Picea* comes from the Latin word *pix* meaning "pitch."

Picea asperata

This handsome species was brought out of western China in 1910 by E. H. Wilson. It has proved perfectly hardy at the Arnold Arboretum, and most vigorous. In China, it grows 100 feet tall, making a dark green pyramid of sturdy appearance somewhat resembling the Norway Spruce, *Picea excelsa*.

Picea canadensis

A tall, dark blue-green tree, the White Spruce is at home in the coldest parts of eastern Canada and New England where it sometimes grows 150 feet high. It holds its lower branches longer than most foreign species. In cultivation, it seldom exceeds 50 to 60 feet high, and grows slowly into a mass of silvery green.

Picea engelmanni

Engelmann's Spruce is one of our noblest native trees, foresting the Rocky Mountains from British Columbia to northern Arizona. Although a denizen of the highest elevations, it grows slowly and vigorously in the lowlands of the East, making a handsome, compact pyramid, with its lower branches resting on the ground. The foliage varies in different specimens from blue to silvery gray-green and has a strong, aromatic odor.

Picea excelsa

The Norway Spruce is useful only as a quick-growing windbreak or for quick reforestation purposes. Because of the long time this tree has been cultivated, unusual and more valuable varieties have been developed. Our plants are particularly well shaped and of excellent, compact habit. This is the Spruce originally used as the "Christmas Tree."

Picea excelsa aurea

A handsome ornamental tree, the Golden Norway Spruce has foliage of brilliant golden yellow on the exposed side. It does best in partially shaded locations. Less vigorous than the type, it will reach 35 to 50 feet in age.

Picea excelsa clanbrasiliana

Lord Clanbrasil's Spruce is a very hardy, dwarf form, seldom more than 4 to 5 feet high, forming a broad, billowy mass of light green, slender foliage.

Picea excelsa conica

The Arrowhead Spruce is very dwarf, making a dense cone less than 8 feet high, with crowded, upright branches and slender, light green foliage. This should replace the Norway Spruce in all foundation plantings.

Picea excelsa gregoryana

Gregory's Spruce is a still lower, rounded bush, rarely more than 2 feet high, with very short, crowded branches covered with long, pale green foliage.

Picea excelsa maxwelli

Maxwell's Spruce forms a broad, dense cushion less than 2 feet high, with thick, stubby branches covered with long, pale green leaves tapered to hairlike tips, and arranged all around the short branchlets so the end view shows a starlike formation. This true form, which originated in the old Maxwell Nursery, is quite distinct and one of the most desirable of all dwarf evergreens.

Picea excelsa microsperma

This has a similar, very dwarf, bushy habit of most attractive appearance. A short, stubby grower, with needles shorter than in any other form.

Picea excelsa nana

A baby Spruce that grows into a very flat, rounded bush with thick orange-yellow branchlets which sometimes assume swollen and grotesque forms, making a very interesting and attractive plant for specimen use.

Picea excelsa pendula

A curious upside-down tree, the Weeping Spruce grows 20 to 25 feet high, with the branches seemingly inverted, sweeping downward. It is effective in exotic situations and much used for Japanese garden effects.

Picea excelsa procumbens

The Prostrate Spruce is a creeping shrub with thin, flat, light green foliage crowded on bright yellow branchlets. The plant gets to be about 2 feet tall, but the horizontal branches spread over 12 to 15 feet.

Picea excelsa pumila

A low, globe-shaped shrub, the Dwarf Spruce is crowded with dense branches and short, lustrous, blue-green foliage.

Picea excelsa pygmaea

A jolly little jug-shaped tree several feet high, the Pygmy Spruce is covered with bright green, glossy foliage.

Picea excelsa pyramidalis

The Pyramidal Spruce is a slender, columnar form, with stiffly upright branches forming a very symmetrical pyramid.

Picea excelsa repens

Even lower and flatter than *procumbens*, the Creeping Spruce makes an excellent ground-cover. Its irregular habit makes it particularly adapted to rockwork.

Picea glauca conica

The Dwarf Alberta Spruce is the most distinct of all Spruces. Its blue-green needles are very slender and arranged radially around the thickly set branchlets. Although a dwarf, it is a perfect miniature of the tall forest trees, and eventually develops into a dense, narrow pyramid 4 to 5 feet tall. For the rock-garden no finer evergreen could be used. It prefers a slightly shaded spot where the soil is cool and moist, but drained. The original tree was discovered in the Canadian Rockies by Dr. J. G. Jack, who introduced it to the Arnold Arboretum in 1904 where it is still thriving.

*As sunbeams stream through liberal space,
And nothing jostle or displace,
So wared the pine tree through my thought,
And fanned the dreams it never brought.*

EMERSON

Picea koyamai

This graceful, hardy Spruce was introduced from central Japan to the Arnold Arboretum by E. H. Wilson in 1914. It has proved hardy and promises to make an excellent, enduring tree in this climate. In Japan it grows from 30 to 60 feet high.

Picea omorika

From the Balkans of southeastern Europe comes the handsome, slow-growing Serbian Spruce. In its youth it forms a dense, narrow pyramid and in maturity, rises to 100 feet or more, keeping its narrow, pyramidal shape. The flattish leaves are a rich glossy green on the under side, with broad white stripes above, so when the branches sway a bicolor effect is seen. This is, undoubtedly, among the finest Spruces for the northeastern states. The Serbian Spruce was brought to America about 1880 and has proved one of the most desirable and dependable evergreens for the northeastern states.

Picea orientalis

The Oriental Spruce is an old inhabitant of our gardens, having come from Asia Minor in 1837. It is a very graceful tree with dark, glossy foliage of slow, steady growth which keeps it dwarf for many years and renders it suitable for small gardens. The lower branches are retained until the tree nearly matures. In its homeland the head rises to 150 feet—a picture of aristocratic beauty.

Picea polita

The Tigertail Spruce is a distinctly striking tree with rigid, spiny leaves outspread in all directions along the stiff branches. It has an irregularly shaped head and in Japan the trunk grows 90 feet tall. The Tigertail was brought to America in 1862.

Spruces



FUNNY, isn't it, how many of our childish likes and dislikes are founded on seemingly little things?

In our yard, for instance, were four big Norway Spruces. During the winter the wind whistled and sighed through them, and made me feel so homesick, right there in my own home, I wanted to run away.

Then my Mother, returning from one of her trips to New Hampshire, brought us a little barrel of Spruce-gum nuggets which made just the finest kind of chewing-gum for us kids.

From then on I thought the chewing-gum-bearing Spruce tree was almost as good as the bush that is said to grow the striped candy canes.

Now that I am grown up—or at least think I am—find I have a deep-seated respect and real fondness for all the Spruces. Their sturdiness, their dignity is so worth while.

It has prompted us to sort of make a hobby of growing them. Maybe it has something to do with ours being such uncommon good stock.

Might part with some at a fairish price. Truth to tell, that was our original intent in growing them.

Picea pungens

A native of a small section of the Rocky Mountains centering in Colorado, the Colorado Blue Spruce is similar to Engelmann's Spruce, but somewhat less attractive although young plants are surprisingly vigorous and very handsome. The foliage varies from bright blue on some plants to dull gray-green on others, and several selected forms have been introduced. It is useful in landscape work and distant plantings where the early decay of the lower branches is of no importance.

Picea pungens glauca

This is a selected form of the Colorado Blue Spruce, with dense, steel-blue foliage of an even and attractive color.

Picea pungens kosteri

Koster's Blue Spruce is one of the most famous ornamental trees in the world. Its foliage is brilliant silvery blue and our plants have been carefully selected for evenness of color and perfection of shape. The original Koster Spruce sprang from some Rocky Mountain seeds that were sent to the Zurich Botanical Garden in Switzerland, and thence to Koster's Nursery in Holland. Among the little batch of seedlings an intensely "blue" one stood out among all others, and its possibilities were at once realized. This one plant was carefully guarded and propagated, so all the true Koster Spruce seen today are offsprings of the one seedling.

Picea retroflexa

A lofty tree 120 feet in height, this species adorns the mountains of western China. It was brought to the Arnold Arboretum by E. H. Wilson in 1910, where it has proved to be a hardy, decorative subject with long, lustrous green leaves closely clustered on light yellow branchlets.

PINUS

ABOVE all evergreen trees the Pine stands in economic and social importance. The name is a synonym in common speech for all cone-bearing trees, and many people call all evergreens Pines. The Pine is one of the "grand triad" with the Apple and the Oak, and it stands in the mind of humanity as a symbol of the whole vast assemblage of conifers and all that they have meant in the progress of the world.

Pinus is the dominating genus in the great family of Pinaceæ. It has more species and a wider adaptability than any other genus, growing in more places on a wider variety of soils, and

under a broader range of climatic conditions than any other evergreen. But Pines are not city trees and never succeed within city districts except for a brief time. They belong to the open country, to hillsides and sandy slopes, even going down to the sea, but they will not endure shade, smoke, or an excess of dust. Except for a few dwarf and bushy varieties, they are trees for making groves, forests, windbreaks, and specimens on large lawns and estates.

Pines differ materially in old age from their appearance in youth. When young, they hold their branches widely spread upon the ground, forming a symmetrical, conical tree, but at maturity, they invariably drop their lower limbs, and the trunk branches into a spreading, rounded top of very picturesque aspect.

Pines willingly consent to grow through considerable drought and flourish accommodately on poor soil. Consequently they are useful for reclaiming waste land, and can be depended upon to thrive almost anywhere if the soil is not full of stagnant water.

Pinus cembra

The Swiss Stone Pine comes from the Swiss Alps and the mountains of northern Russia and Siberia. It is always a slow-growing tree with slender, horizontal branches. When young, it forms a compact, blue-green pyramid, keeping a handsome habit until twenty-five to thirty years old. In its old age, it develops a broad, open, round-topped head which makes a handsome picture silhouetted against the sky.

Pinus densiflora

A quick-growing, very ornamental tree when young, the Japanese Red Pine rises to 100 feet in age, and assumes a rugged aspect of great landscape beauty. It is a native of Japan, and in 1862 was brought to America from Holland, where it had been grown for some years. The foliage is bright bluish green, which contrasts vividly with the reddish bark on the young shoots.

Pinus densiflora umbraculifera

The Japanese Umbrella Pine, called "Tanyosho" by the Japanese, is a dwarf, dense form of the Red Pine, with a wide, flat head shaped like an umbrella. It is very dwarf, seldom ascending higher than 10 feet, even in old age.

Pinus excelsa

In 1827 the Himalayan Pine was brought out of India and it has been grown in America for nearly 100 years. It has proved hardy in sheltered positions as

far north as New England, but occasionally freezes back at the tips. A gigantic tree, 150 feet high, it is of loose wide-spreading habit with gracefully drooping branches on which the long, thin needles are hung in masses. A most handsome tree worthy of your most kindly location.

Pinus flexilis

The Limber Pine ranges over the Rocky Mountains from Alberta to California, and as far south as Texas. When young, the characteristic brushes of bright gray-green needles form an irregular, narrow pyramid. At home it is a low, spreading tree seldom more than 50 feet high, with dense, dark green foliage, achieving, as it grows old, a broad, round-topped head. It is very well adapted for planting on rocky slopes.

Pinus mongolica

A bold, vigorous tree similar in general appearance and habit to the Austrian Pine, with some features of the Japanese Red Pine.

Pinus montana mughus

The Mugho Pine is a flat, spreading bush which never assumes the conical shape generally expected of evergreens, but spreads horizontally to form a mat of stiffly erect branchlets $2\frac{1}{2}$ to 3 feet high. It is a very useful shrub for foundation plantings and rock-gardens.

Pinus nigra

One of the noblest and most dignified evergreen trees, the Austrian Pine has long, dark green needles and boldly spread branches, turned up at the tips. This is a quick-growing tree, easy to have in almost any situation, thriving in waste land and even on the seashore. Its robust, somewhat coarse habit requires plenty of room to develop and to be seen to advantage. It is good for backgrounds and distant planting of all sorts.

Pinus resinosa

The Red or Norway Pine is a tree from the far north, reaching its southern limit in North America in Massachusetts. The best old specimens are 150 feet high, with trunks 5 feet in diameter. It has long, dark green, lustrous needles and light red bark.

Pinus strobus

As the Pine is king of the evergreens, the White Pine is king of the Pines—the most adaptable, most useful, and most valuable of all this mighty family. It grows quickly and is a beautiful mass of soft, dark green, in its youth; achieving a spectacular picturesqueness and towering to 80 to 90 feet when old.

Pinus strobus fastigiata

The stiffly ascending branches of the Pyramidal White Pine form a narrow, columnar head. An interesting and dignified variety very rarely seen.

“Old Jake,” a Pine

Last week-end was spent down in Old Virginia with my old friend Hill Billy Bill. “Two whoops and a holler” from his two-room cabin is a venerable Pine. Gaunt. Gnarled. Alone.

To you and me it would seem it must be tolerable lonesome. But Bill tells me it has friends all up and down the valley. Everybody knows “Old Jake,” as it is called. Let someone say a slighting thing about Jake, and he’d



have all the rifle-ready moon-shiners plum after him. And so it is that trees are folks to some and just trees to others. How too bad it is not more folks than trees. Which remark reminds me we have 300 acres of Evergreens and Deciduous stock. A long way you’ll go to find finer. Might be

that was said sort of by way of business intent. Would enjoy a chat about trees with you—come down.

Pinus sylvestris

The Scotch Pine has comparatively short, gray-green, twisted needles, rather widely spaced, so that the mass of foliage seems a little thin. It is a very hardy, rapid-growing, and thrifty tree, enduring poor soil and severe climates. As it ages, it assumes fantastic outlines and presents a gnarled and weather-beaten appearance, making a very picturesque object in the landscape.

Pinus thunbergi

Hardy in Canada, the Japanese Black Pine forms a handsome, wide-spreading tree with a broad, irregular head of brilliant green foliage. It will attain 100 to 120 feet with age, and is more graceful than most Pines.

PSEUDOTSUGA

Pseudotsuga douglasii

The name means false Hemlock, but the one species generally grown is called the Douglas Fir. This handsome, fir-like tree has gray-green foliage, is very hardy, and extremely ornamental when young. It was brought into cultivation as early as 1827, and thrives in the eastern states almost as well as on its native Rocky Mountains, where some specimens tower 200 feet above the ground.

RETINOSPORA

The family of trees and shrubs generally known by this name is described in this book under *Chamæcyparis*.



Combined planting of three lovely Yews, *Taxus baccata compacta*,
repandens, and *washingtoni*

TAXUS

THE YEWS are ancient trees and have long been cultivated about the homes of men. Stout Saxon warriors made the long-bow of the Yew boughs and with it conquered western Europe. Yews are landmarks for property boundaries because of their permanence and the reverence in which they were held. The Arkenwyke Yew, where Henry VIII used to meet Anne Boleyn, was, when last measured, upward of a thousand years old, 50 feet high, with a trunk 27 feet around. The mistletoe, oak, and Yew were worshipped by the "Druids of eld" who performed their mystic rites beneath the black boughs of the Yew when the oaks were bare. Unfortunately, the English Yew, *Taxus baccata*, will not adapt itself to American conditions, although in gardens where trees get special care, *Taxus baccata* and some of its varieties may be made to live for many years. There is no American Yew of any importance for gardens, but we have

a splendid substitute in the Japanese Yew, *Taxus cuspidata*. This tree is in every way as satisfactory as the English Yew, and is rapidly becoming one of the most popular evergreen trees in America. The Yews do not belong to the same family of plants as the other evergreen trees described in this book. With a few other genera rarely seen in the northern states, they comprise the small group of Taxaceæ, one of the most ancient plant families on the earth. They are closely related to some of the fossil-trees and remotely linked to the curious Ginkgo.

Taxus baccata compacta

The Compact Yew is a dwarf, tree-like shrub 4 to 5 feet high, with upright branches and dark, blackish green foliage.

Taxus baccata erecta

A bushy, upright shrub, the Broom Yew has small, narrow leaves and develops into an open, column-like bush.

Taxus baccata repandens

The Spreading Yew makes a low, bushy shrub with outspreading, horizontal branches and long, dark green, sickle-shaped foliage, seldom growing more than 18 to 24 inches high. It is a useful thing for low borders and foundation plantings. Because of its hardness it is sometimes reputed to be a hybrid of our American Yew.

Taxus baccata washingtoni

A wide-spreading bush, the Golden Yew is 6 to 8 feet high, with golden yellow foliage particularly brilliant on the under side.

Taxus canadensis

The American Yew is an interesting, sprawling shrub native to North America, requiring moist soil and a shady situation where it will spread many feet, though seldom rising more than 2 feet high. The ideal ground-cover under hemlocks and pines.

Taxus cuspidata

The Japanese Yew is the most valuable of the family for American conditions. The spreading form, which we have, makes an open bush 5 to 8 feet high, frequently taller, with dark green foliage highly ornamented in autumn with many brilliant crimson fruits. In the young state, it is much used for foundation planting, but will quickly grow out of hand if it is not kept very closely sheared. As a low hedge plant it is unsurpassed and can be kept to almost any height by pruning.

Yews



Y OLD Grandmother used to say Yews were the trees of dolefulness, because wherever you find an old English graveyard, there are Yews.

When our forefathers came to this country, and couldn't lay their hand on a Yew to plant in God's acre, they had them carved on the top part of the headstones.

Nowadays, happily, no one tree represents sorrow, and the Arbor-Vitæ, tree of life, is particularly happy for our own home-grounds.

And speaking of Yews, Weeping Willows, and Arbor-Vitæ, suspect you will find here as fine stock of all three as can be found. A fact worth remembering.

'Tis said the original Weeping Willow was planted by the early owners of that land across the Potomac from Washington, known now as the Arlington National Cemetery, and formerly the estate of General Robert E. Lee.

From England came that daddy Willow of them all in this country. Up until somewhat after the Civil War it was still standing.

The Virginia side of the Arlington Memorial Bridge is accredited with being about where the old spring was, nearby which the old Willow was located.

Taxus cuspidata capitata

This is a tree form of the Japanese Yew, and the best of all Yews for ornamental and specimen use. It develops a central leader and a conical shape, keeping its thick foliage down to the ground. It is brilliant green through the summer, darkening almost to black in the winter, and the early spring growth is a miracle of waving bright yellow-green tassels. There is no ornamental evergreen to surpass it in beauty at that stage. This upright type is generally found to be the male form of the spreading Japanese Yew.

*Know ye the willow tree,
Whose gray leaves quiver,
Whispering gloomily
To yon pale river?*

THACKERAY

Taxus cuspidata densa

This is a low, rounded bush 3 feet high, with a spread of 8 to 10 feet, having upturned, leafy twigs, making a compact cushion of dark green foliage. This exceedingly rare form was originally imported from Japan by the old Parson's Nursery. It is one of the handsomest of all dwarf conifers.

Taxus cuspidata nana

The Dwarf Japanese Yew is sometimes sold under the name of *Taxus brevifolia*, but that is the name of a far western species of very different habit. The true Dwarf Japanese Yew grows 2 to 3 feet high, with broad, thick, blackish green foliage, and eventually assumes an irregular, spreading habit.

Taxus cuspidata nigra

The Black Yew looks a good deal like *Taxus baccata*, especially because of its extremely dark blackish green foliage. It is a symmetrical bush, broad at the base, very neat and attractive.

Taxus media

This Hybrid Yew shares the best qualities of both its parents, *Taxus baccata* and *Taxus cuspidata*, having a more vigorous habit than the English Yew and differing from the Japanese Yew in its more irregular outline and darker green foliage. This hybrid was raised about 1900 in the Hunnewell Garden at Wellesley, Mass., by T. D.

Hatfield, and is just now coming into commerce. It might be described as a quick-growing *Taxus cuspidata nana* with a similar spreading, irregular habit.

Taxus media hatfieldi

Hatfield's variety is a compact, conical bush of handsome, pyramidal form.

Taxus media hicksi

Hicks' variety is a distinctly columnar shrub about 6 to 8 feet tall which was raised by Henry Hicks on Long Island. It is similar to the Irish Yew and is suitable where that variety freezes in winter.

Taxus media wellesleyana

The Wellesley Yew is another of Mr. Hatfield's seedlings of extremely interesting habit and fine, dark, lustrous color. Forms a dense, broad column. This variety is, perhaps, the most promising of all upright forms.

Taxus sieboldi

While Siebold's Yew resembles *Taxus cuspidata* in many respects, it is much bushier in habit and grows faster. We feel that it is a more desirable plant, regardless of the fact that some botanists consider it synonymous with *Taxus cuspidata*. Forms a splendid low hedge.



The Japanese Yew, *Taxus cuspidata*, makes a beautiful hedge



A variety of *Arborvitæ*, *Thuja*, showing varied types and their pervading
air of dignity and permanence

Behold the trees unnumbered rise,
Beautiful, in various dyes;
The gloomy pine, the poplar blue,
The yellow beech, the sombre yew,
The slender fir that taper grows,
The sturdy oak with broad-spread boughs.

DYER

THUYA

THE ARBOR-VITÆ (tree of life) belongs to a small family of four or five species—one in eastern North America, another in western North America, one in Japan, and possibly two in China. All these trees are pyramidal in shape, with aromatic, flat, fan-like branchlets thickly covered with scale-like leaves. As young plants, the Arbor-Vitæ are formal and ornamental, varying widely in habit and color of foliage. Old plants become gnarled and twisted, but usually retain their lower branches until a great age, unless they are destroyed by man.

Thuya lobbi

See *Thuya plicata*.

Thuya occidentalis

The White Cedar, or American Arbor-Vitæ, is a native of eastern North America where it is an inhabitant of swampy ground forming some of the famous "cedar barrens" of the eastern coast. It is a conical tree, rather more slender than most, and

A Fitting Use for Arbor-Vitæ



Yesterday I was in quite one of the loveliest of gardens. Not large. Not formal. But in a fitting restraint.

Framing it, is a low hedge of *Taxus*, not too formally sheared. At the entrance, two Columnar Junipers. The walks are stepping-stones laid with a careful carelessness. A sun-dial, with *Daphne cneorum* blooming at its base, is at the end of one cross-walk.

Two gnarled old Arbor-Vitæ give character and lend their significance. At the end of the central walk is a low seat, resting on a brick-paved space, surrounded by Dwarf Box. Behind the seat are four Arbor-Vitæ about 6 feet tall.

Everywhere are low-growing, blooming flowers, mostly blue, tenderly cared for. There is an unmistakable hush and hallowedness about all its character and loveliness.

It is a memorial to a wife who, one sunny Sunday morning, passed through the garden never to return. How fitting are the Arbor-Vitæ—tree of life.

ordinarily does not exceed 30 feet, but strong specimens will rise to 60 feet or more, retaining their wide-spreading lower branches as buttresses to support their trunk. Frequently, they have several trunks, the group assuming the outline and form of a single tree. The White Cedar is much used

for hedging and withstands shearing to an astonishing extent, but it is criminal to use so handsome an evergreen in that fashion. It will make a good line for any landscape planting, its curious upward-stabbing spires looking like exclamation points against the sky. Children love to play in the great hollows which old Arbor-Vitæ make around their central trunk, like green-walled rooms in some half-ruined castle. It is one of the oldest American trees now in cultivation. The first specimens were taken to Europe before the middle of the sixteenth century.

Thuya occidentalis douglasi aurea

Douglas's Golden Arbor-Vitæ is a vigorous, rapid-growing form reaching 15 to 20 feet high, with bronze-yellow foliage.

Thuya occidentalis douglasi pyramidalis

Douglas's Pyramidal Arbor-Vitæ is a dense, slender tree 10 to 20 feet high, with short, stiff, fern-like branches. It is sometimes erroneously called *Thuya plicata* and again *Thuya spiralis*.

Thuya occidentalis elegantissima

The Golden-tipped Arbor-Vitæ is a lustrous green tree 10 to 15 feet high, gilded all over in early spring with new shoots of bright yellow.

Thuya occidentalis, Little Gem

This is a broad-spreading, billowy little tuft 2 feet high, just full of character, very useful for the rock-garden and most border-work, and as a low informal hedge it is unbeatable. In our opinion this is decidedly the best of all dwarf forms of Arbor-Vitæ. The variety *Thuya recurva nana* seems to be the same thing.

Thuya occidentalis lutea

George Peabody's Arbor-Vitæ is a 10-foot tree, sometimes a little taller, of strict columnar shape with brilliant yellow foliage.

Thuya occidentalis pumila

A rounded little bush about 2 feet high, the Green Globe Arbor-Vitæ is somewhat like Little Gem, but more conventional with its almost spherical outline.

Thuya occidentalis pyramidalis

The Pyramidal Arbor-Vitæ is a stiff, upright, columnar form with short, stubby branches held erect. Its accepted name is *Thuya occidentalis fastigiata*. It is especially fine for accents or formal planting, growing 15 to 30 feet high and retaining its brilliant color throughout the winter.

Thuya occidentalis riversi

River's Arbor-Vitæ is a compact, broadly pyramidal tree of vigorous growth, 8 to 10 feet high, with bright yellow-green foliage.

Thuya occidentalis rosenthali

Rosenthal's Arbor-Vitæ is a rugged, columnar little tree reaching 6 to 10 feet eventually, although it is a slow grower. It is very hardy and has foliage which is especially good in winter.

Thuya occidentalis umbraculifera

Only 2 to 3 feet high, the Umbrella Arbor-Vitæ is shaped like an enormous, dark green mushroom. A fine sort for low masses in borders or rock-gardens.

Thuya occidentalis vervaeneana

The Vervæne Arbor-Vitæ is a small, dense tree, 8 to 12 feet high, with variegated greenish yellow foliage which turns bronze in winter.

Thuya occidentalis wareana

A robust variety of pyramidal habit, the Siberian Arbor-Vitæ reaches a height of 12 to 15 feet, making a broad, shapely cone. The foliage is brilliant green. Of all Arbor-Vitæs, this forms the finest hedge, and with age assumes an interesting rugged character.

Thuya orientalis

So different is the Chinese Arbor-Vitæ from the American Arbor-Vitæ, or White Cedar, that for a long time it was assigned to a separate genus and called *Biota orientalis*. It was discovered in Japan and at first was considered a native of that country, but evidence has proved that it was one of the numerous plants which the Buddhist priests carried from China to Japan when the Japanese were converted to that religion. Nearly two hundred years ago it was taken from Japan to Europe, and along with it many of the curiously beautiful variations which the Japanese had discovered and perpetuated. The true species is a small, bushy tree of somewhat pyramidal habit, with flat, fan-like branches covered with brilliant emerald-green foliage stood edgewise in a most distinct and peculiar manner. It is a beautiful tree for massing effects, borders, and high hedges, and is hardy throughout the East.

Thuya orientalis aurea conspicua

The Golden Spire Arbor-Vitæ is a pointed little tree, 7 to 8 feet high, with brilliant yellow foliage in spring, turning to bronze in the winter.

Thuya orientalis aurea nana

Berckman's Golden Arbor-Vitæ is a handsome mound of golden yellow foliage 2½ to 3 feet high. It is an excellent subject to use in formal gardens and for edging groups of larger evergreens.

Thuya orientalis bakeri

Baker's Arbor-Vitæ has a bushy, columnar habit and gray-green foliage. It is useful for dry, hot situations where other forms rarely flourish.



An informal Arbor-Vitæ Hedge makes an effective Screen

Thuja orientalis compacta

Siebold's Arbor-Vitæ makes a small, egg-shaped bush of peculiarly vivid green. Because of its low growth (3 to 4 feet), it is a fine plant for low borders and specimen use in formal gardens.

Thuja orientalis decussata

This interesting plant is sometimes known as *Retinospora decussata*. It is a peculiar juvenile form of the Chinese Arbor-Vitæ, with feathery, needle-like foliage different from the mature type. It grows 2 to 4 feet high and assumes a rounded, oval shape. Of value for specimen and border use.

Thuja orientalis elegantissima

Yellow Columnar Arbor-Vitæ is a slender, bushy tree 7 to 8 feet high, covered in the spring with bright yellow foliage which becomes yellowish green in summer and a most attractive dark golden bronze in the winter. This appears to be the hardiest form of the Chinese Arbor-Vitæ.

Thuja plicata atrovirens

Noblest of the Arbor-Vitæs the Western or Giant Arbor-Vitæ is a 200-foot forest tree of the Cascade Range. The short horizontal branches mould it into a compact cone—and the tree is hardy, and a rapid grower. It was brought into cultivation in 1853 by William Lobb, whose name it sometimes bears. The variety "atrovirens" offered here has darker and more lustrous foliage and is more dependable in the East than the type species.

Thuja standishi

Standish's Arbor-Vitæ is different from the White Cedar or the Chinese Arbor-Vitæ, and a native of Japan. It has been cultivated in North America for more than a half-century, and proved hardy in New England. It makes a broad, columnar tree with a spreading head 50 feet high.

TSUGA

MANY PEOPLE will maintain that the Hemlock is the handsomest evergreen tree in eastern North America. Certainly, there are no evergreen trees which preserve for a longer time the grace, dignity, and beauty of the entire tree, from basal branches to tips, than the native Hemlocks. If given plenty of room, they will assume magnificent stateliness, clothed with branches and foliage from top to bottom throughout their existence, a merit not possessed by other evergreens to any extent. There are not very many species of Hemlocks, but all of them are magnificent trees. As a rule, they are not particularly fastidious about soil or exposure, but they do enjoy fresh air, full sunshine, and plenty of moisture, although young trees will endure a great deal of shade. Hemlocks may be sheared to an unlimited extent, and young plants can be trained into an excellent high, dense hedge if anyone is cruel enough to cut them so.

Tsuga canadensis

The magnificent American Hemlock is well known throughout the eastern United States. It is adaptable to almost any use in the landscape or forest work, but is sometimes used disastrously in foundation plantings by inexperienced planters. Hemlocks demand plenty of room to develop their characteristic beauty. It is rather surprising to learn that a palatable drink, "Hemlock tea" can be made from the needles, just as ordinary tea is made.

Tsuga canadensis atrovirens

For foundation planting and similar low planting, this form is ideal. While it will eventually attain 15 to 20 feet, it is very slow-growing and needs no trimming. The rich deep green leaves are crowded on numerous ascending branches, making a shapely, dense, broad pyramid all through life—really a handsome subject.

Tsuga canadensis compacta

The Dwarf Hemlock, an interesting little bush with numerous short branchlets and tiny leaves, seldom grows more than a few feet high.

Tsuga canadensis pendula

Sargent's Weeping Hemlock makes a flat-topped shrub with wide-spreading branches drooping at the tips. It seldom grows more than 4 feet high, but spreads horizontally to an indefinite extent, always maintaining its characteristic well-clothed appearance. This true Sargent's Hemlock was originally found on Fishkill Mountain, and eventually found its way to the Arnold Arboretum, where it is now a magnificent specimen.

Hemlock



WHEN a boy I always had it in for the Hemlock because of its supposed killing of the old Greek philosopher, Socrates. It was with relief I learned later that the home-brew which carried off "poor old Soc" was made from the roots of a near relative to our wild carrot.

So, ever since, the silver-lined-foliaged-Hemlock has had my hundred per cent admiration.

In former days, when it took months instead of only hours to tan leather, the tannin-rich Hemlock bark was the main standby for the soaking-vats.

What incredibly huge piles of that bark we used to see, all neatly piled and roofed. And what leather that Hemlock did make!

Admittedly, the lumber itself is nothing to write a poem about. But neither of us is considering lumber right now.

So, I repeat, plant Hemlocks. Also, if you would have choice stock, we know where there is some available. In fact, it is right in our front yard, which covers some 300 acres.

Tsuga caroliniana

The Carolina Hemlock is a smaller tree than its northern brother, scarcely ever attaining in cultivation more than 50 feet in height. It has longer and more disheveled foliage, which is almost like a Yew in richness of color as well as shape. The sweeping, pendulous branches create splendid shadow effects, and in all it is a tree of extraordinary beauty. The late Professor Sargent considered this tree the handsomest conifer that is hardy in New England. Fortunately, it will withstand city conditions, does not sunscald, and is, apparently insect-proof, so we have no hesitancy in recommending it very highly.

*I remember, I remember
The fir-trees dark and high;
I used to think their slender tops
Were close against the sky.*

HOOD

Tsuga diversifolia

This Japanese Hemlock is almost like a small edition of Siebold's; in fact, it has been classified as *Tsuga Sieboldi nana* by one botonical authority. The short, blunt leaves are rather sparsely distributed along the reddish branches. Although distinctly pleasing, it has a stiff habit unlike most Hemlocks, but improves with age. Of slow growth, it will not get "out of hand," and is a worth-while member of this splendid family.

Tsuga fremdi

An unusually handsome tree of the type of *Tsuga canadensis*, with a more symmetrically pyramidal form and particularly handsome, densely packed foliage. We believe it is even better than the almost unbeatable American Hemlock, especially for "foundation work" where smaller plants are desired.

Tsuga sieboldi

Siebold's Hemlock is a Japanese species similar in many respects to the Carolina Hemlock, with larger and more glossy leaves. Although a large tree in Japan, it behaves more as a shrubby specimen with us and very much dislikes being transplanted, and prefers a sheltered corner. It has an excellent habit, and is generally satisfactory wherever the American native will grow.



Evergreen Shrubs

NEVER will I forget a horseback ride four of us took one spring in the mountains of North Carolina.

It hadn't occurred to us that the Rhododendrons would be in bloom.

At the time, we had been getting the most of our collected native stock from the Pocos. Ever since that memorable ride through those bloom-lined roads, like vast flower-decorated aisles, miles long, all our native stock comes from those mountains.

And what wonderful stock it is, only you who have seen or used it know.

As for our Hybrids, you will find them well feathered out. As fine fat plants as are findable anywhere.

Happily, now that the planting requirements and after-planting necessities of Evergreen Shrubs are better understood, they are fast coming into their own.

What we have said about the quality of our Rhododendrons goes for all F. & F.'s Evergreen Shrubs.

*Somewhat back from the village street
Stands the old-fashioned country seat
Across its antique portico
Tall poplar trees their shadows throw.*

LONGFELLOW

Flame

This variety must not be confused with the native Flame Azalea, *Azalea calendulacea*. It is a hybrid of the Kurume type with brilliant crimson flowers.

Fujimayo

One of the new Japanese Azaleas, with large, double, lavender-pink flowers 1½ inches in diameter.

Hinodegiri

This is one of the choicest shrubs in existence, attaining 3 to 4 feet in height, and broader in diameter. The small foliage is lost in a mass of vivid scarlet-crimson flowers in April and May. It is a decided improvement over *Amœna*, which it resembles in habit.

Red Salmon (*Macrantha*)

The name *Macrantha*, which is sometimes applied to this variety, is a mistake. *Macrantha* is an old, specific synonym of *Azalea indica*.

Azaleas



HOW my old Dad did laugh at me when, reading aloud some ancient history, I called Xenophon, "Ex-en-o-fun." After he had calmed down, he told me an interesting instance about a battle this ancient general lost because of honey.

In one of his conquests they camped in a section, the hillsides of which were covered with Azaleas. Wild honey was discovered by the soldiers, of which they ate freely. The bees having made it from the flowers of the Azaleas, that honey was just like so much sleeping-dope.

When the enemy made a surprise attack, half the soldiers were so sound asleep that great numbers of them were made prisoners.

So beware alike of Azalea honey and honeyed words.

This is an Indian Azalea, less hardy than the Japanese type, with vivid orange-red flowers nearly 2 inches across.

Yayegiri

This is a very showy orange-red variety of the curious hose-in-hose type, having two or three corollas set inside each other.

For other Azaleas, see page 109



Azalea hinodegiri makes a spectacular sheet of scarlet-rose at the edge of this lawn

BERBERIS

THE BARBERRY family is dignified by a number of handsome evergreen shrubs whose only drawback is a slight tendency of certain species to freeze at the tips in winter. South of New York City, they are dependably hardy and retain their interesting foliage undamaged through the winter.

Berberis atrocarpa

This handsome shrub grows 5 feet high and bears long spines and thin, narrow leaves rather spiny at the edges. It blooms in June, and in October displays an unusual abundance of glittering black fruit.

Berberis gagnepaini

A handsome evergreen growing nearly 6 feet tall, with glittering, narrow, spiny-edged leaves sometimes nearly 4 inches long. Flowers are bright yellow, in clusters, followed by bluish fruit.

Berberis neuberti latifolia

Few plants have suffered from more names than the Holly-leaved Barberry. In addition to *Berberis ilicifolia*, it is sometimes called *Mahoberberis neuberti latifolia*. The plant is a 5 to 6-foot shrub, with thick, holly-like leaves 3 inches long, having spines at the tips. The branches are not thorny, and fruit is rarely, if ever, produced. It is a hardy plant and withstands drought to a remarkable degree.

Berberis julianae

The Wintergreen Barberry is an erect, 6-foot shrub, extraordinarily beautiful in the spring, with new, ruddy green shoots and yellowish leaves which develop into long, closely toothed leaves arranged in clusters, with sharp spines at the base of each leaf. The bright yellow flowers are followed by purplish fruits.

Berberis triacanthophora

A curiously graceful bush, this evergreen Barberry makes an open plant 4 feet high, covered with narrow leaves a scant 2 inches long, sharply toothed, with three very long, sharp spikes at the base of each leaf. The bright glossy green of the upper surface contrasts vividly with the whitish covering beneath. Its flowers also are unusual in that they are white, tinged red, and are produced in small clusters followed by long, blue-black bloomy fruits.

Berberis verruculosa

Rarely does anyone see a finer plant than this extraordinarily handsome evergreen. It seldom grows more than 3 feet high, becoming very bushy, with graceful branchlets densely clothed with small, glittering green, holly-like leaves, downy white on the under side. The fragrant yellow flowers are very conspicuous in spring, but the black fruits generally escape notice. It is one of the most beautiful shrubs in existence, and is excellent for low edging or hedges.

For other Barberries, see page 114

BUXUS

Buxus sempervirens suffruticosa

The true Dwarf Box is a slow-growing evergreen shrub which attains a height of 3 to 4 feet in the course of a couple of hundred years. It is largely used for low edging and can be sheared to 6 inches high or a foot, as the desire may be. The tiny blackish green foliage is impervious to smoke and soot, and a planting of this indestructible edging plant is good for several generations of any family.

CALLUNA

THE HEATHER is a famous plant in the history and folklore of almost all northern European peoples. Strangely enough, no Heather has been proved to be a native of North America, and the plant has resisted all efforts to naturalize it in this country. In Europe, it is one of the commonest weeds, covering hundreds of square miles of mountain and upland plain with a dense, feathery green growth, breaking into exquisite masses of flowers of the utmost delicacy. Here it is a rock-garden plant, to be treated with utmost respect. Heather likes sour soil, open sun, and a fair share of moisture, but promptly curls up and dies if the location is not thoroughly drained.

Calluna vulgaris

The true Scotch Heather makes a mass of evergreen foliage like that of some tiny juniper, covered in midsummer with curious waxen lavender flowers. If it is happy, it will grow 1 to 2 feet high and spread amazingly in a few years. It should be planted in large masses on a well-drained sunny slope.

Calluna vulgaris alba

White Heather makes a fine ground-cover 1 to 2 feet high, and bears white flowers instead of the usual purple.

Calluna vulgaris alba minor

Dwarf White Heather is a similar but more compact variety and not quite so tall.

Calluna vulgaris alba pylosa

Shaggy Heather is much the same, with white flowers and shaggy foliage.

Calluna vulgaris alba rigida

Brush Heather is another white-flowered variety with stiff, erect branches. This is the best form for use in rockwork.

Calluna vulgaris alba tenella

Slender Heather also has white flowers, but the twigs and branches are thin and wiry.

Calluna vulgaris aurea

Golden Heather has yellow foliage and pink flowers.

Calluna vulgaris humilis

A moderately dwarf type about 1 foot high, with specially rich green foliage and tiny white flowers.

COTONEASTER

THE COTONEASTERS are graceful shrubs belonging to the Rose family, all native to the northern hemisphere. They are handsome foliage-plants and their ornamental fruits give them high value for home-gardens and landscape work. Cotoneasters are hardy throughout northern United States, and prefer a sunny, open situation in well-drained soil. The foliage is not entirely evergreen in some varieties, but it persists until late winter. All Cotoneasters have very attractive fruits.

Cotoneaster adpressa

An intricately branched, half-evergreen shrub, the Creeping Cotoneaster grows flat along the ground, often rooting along the stems. The gloss on the dark green leaves is accentuated by the wavy edges and the manner in which they are crowded on the branchlets. Large scarlet berries appear in early autumn, when it is difficult to imagine a better shrub for the rock-garden.

Cotoneaster apiculata

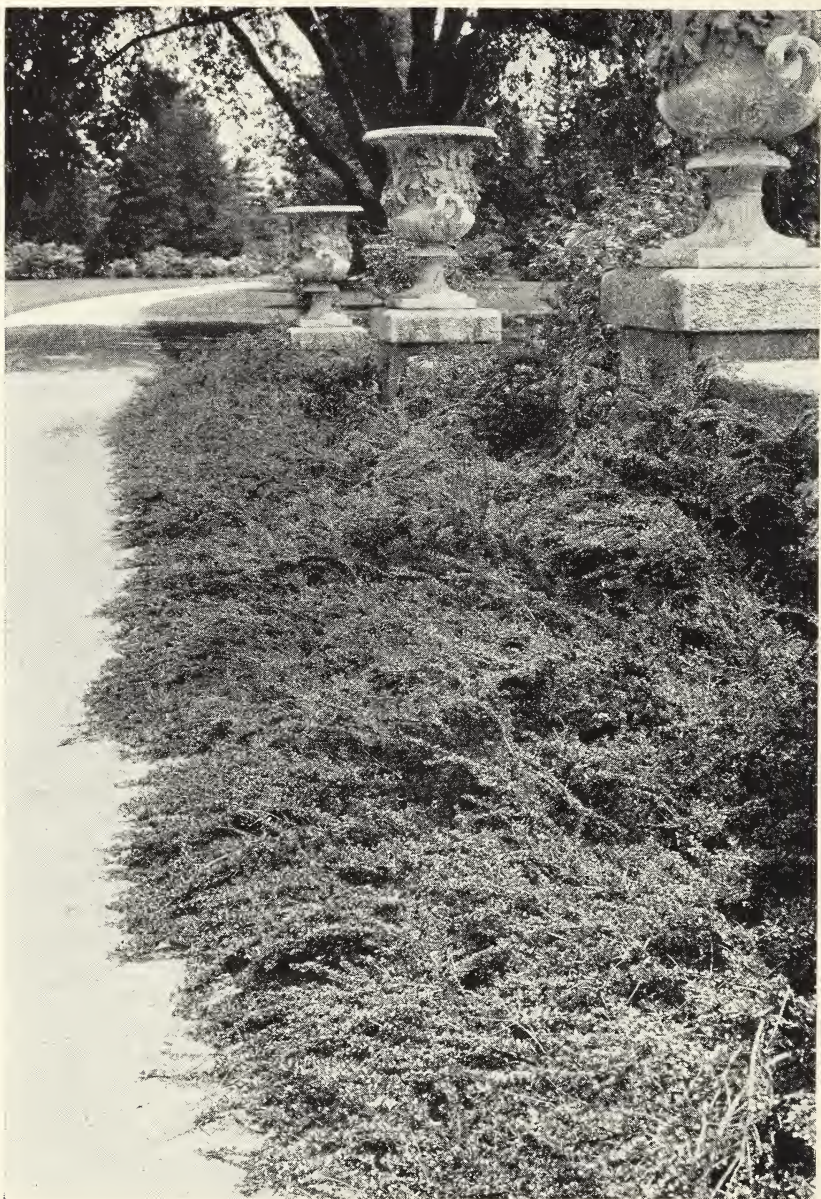
A handsome big shrub 6 feet or more high, with roundish, sharp-pointed leaves of brilliant green. It resembles Simon's Cotoneaster in its abundance of glittering red berries.

Cotoneaster francheti

Franchet's Cotoneaster is a handsome 8-foot shrub with long, dark green, deeply veined leaves and pinkish white flowers in clusters, followed by bright orange-red berries. In the autumn the leaves turn brilliant shades of red and orange and endure until spring in more or less satisfactory condition.

Cotoneaster horizontalis

The Rock Cotoneaster is a delightful little shrub with flat, spray-like, almost horizontal branches, feathered with tiny box-like leaves and studded in spring with tiny pinkish flowers, followed in autumn and winter by scarlet berries. It makes a thick, flat ground-cover or rock-plant in almost any hot, dry situation, and holds its foliage until midwinter.



Cotoneaster horizontalis gives an exquisite finish to the edge of the driveway, where it flourishes in spite of drought, hard soil, and blazing sun

*I am thinking of the lilac trees
That shook their purple plumes,
And when the sash was open
Sbed fragrance through the room.*

MRS. STEPHENS

Cotoneaster horizontalis perpusilla

This variety of the Rock Cotoneaster has smaller leaves and almost trailing habit. It is extremely neat and very pretty in rock-gardens.

Cotoneaster lemoinei

Lemoine's Cotoneaster is a graceful, arching shrub with narrow, dark green leaves and bright red berries.

Cotoneaster microphylla

The Rockspray is a very hardy, truly evergreen shrub of bushy habit, 2½ feet high, with very small, dark, glittering green foliage. Its white flowers are followed by scarlet berries. Particularly handsome as it matures.

Cotoneaster microphylla thymifolia

With even smaller, narrower foliage, the Thyme-leaved Rockspray is a dwarfier, more compact plant than the usual type. It is a true evergreen.

Cotoneaster rotundifolia

The Round-leaved Cotoneaster is a handsome shrub from the Himalaya Mountains, with roundish leaves about ½ inch across and vigorous, arching branches reaching 8 feet high. Its white flowers are borne singly and are succeeded by large scarlet berries. The foliage endures almost intact until spring.

Cotoneaster



ONE can but wonder how a perfectly well-behaved Aster, that some day or other doubtless found its way here from China, could get itself so all mixed up as to start growing leaves that look like a Quince (Cotoneum).

And having done such, turn around and stop being a mere plant and become a crawler, a shrub, and even take on tree aspects.

After which, being a bit confused, it never quite decided whether to be an evergreen or an out-and-outer otherwise.

So, like the tactful lassie that it is, became both, according to where its happy home may be.

By intention, we have gone to considerable lengths to have the worth-whiles of this agreeable Cotoneaster family.

In truth, we are rather specializing on them. Which fact may account for their being such fine stock. This latter fact we have a notion you will take special pains to bear in mind when next you want Cotoneasters.

Cotoneaster salicifolia floccosa

A giant 15-foot shrub, the Willow-leaved Cotoneaster has 3-inch leaves of shining green with a woolly under-surface. The flowers are white and the fruits bright red in profuse clusters. This is the most graceful of all.

Cotoneaster tenuipes

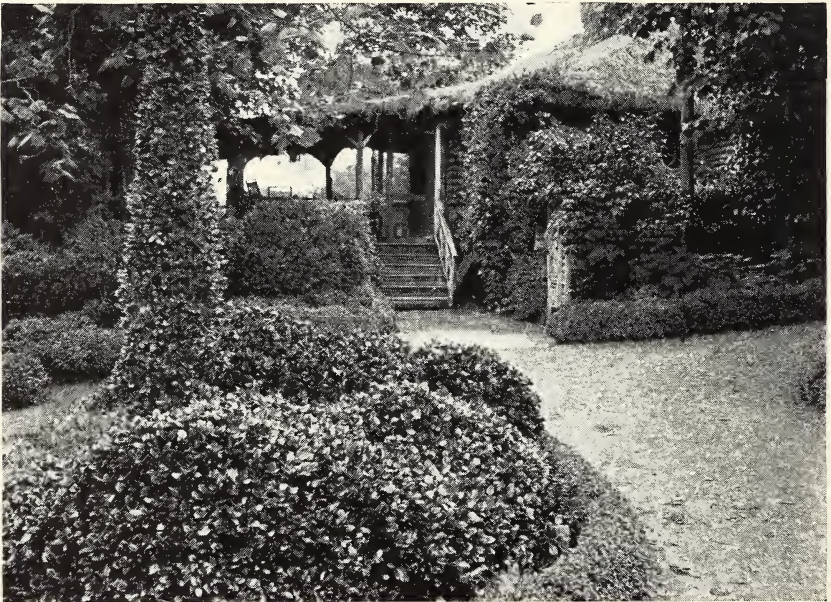
A rare Chinese species brought to America twenty years ago. Its slender, arching branches ascend to 6 feet or less, and are well furnished with narrow leaves covered with down on the under side. The berries are glittering black.

Cotoneaster simonsi

Simon's Cotoneaster grows 6 feet high with an attractive open habit and *almost* evergreen foliage which turns dark crimson in autumn. The flowers are white and the fruits bright red. It is one of the showiest and most colorful of the family.

DAPHNE**Daphne cneorum**

Rose Daphne is a dainty little bush 1 to 2 feet high with gray-green foliage, each shoot tipped with clusters of clear rose-pink flowers in April and May and again in the autumn. The fragrance of the Daphne is so strong that a few plants will scent a wide area. It is an ideal rock-plant, succeeding with very little care provided it is in full sunlight and has a loose, well-drained soil which never becomes thoroughly dry. Daphne appeals to everyone, and is one of the most popular shrubs we know. There is no limit to the demand except the supply.



Showing *Euonymus radicans* vegetus both as a climber and as a shapely shrub
A most useful evergreen

EUONYMUS

THE EUONYMUS family boasts of a few distinctly handsome evergreen shrubs and vines, but, unfortunately, appreciation of their intrinsic merit has been lacking because they have almost always been used as substitutes for something else. People have been told to plant climbing Euonymus in climates where English ivy would not grow, thus giving the impression that the ivy is a better plant. But the various Euonymus have distinct merits of their own. They are extraordinarily easy to grow because they are satisfied with any kind of soil and practically any exposure. They are very hardy, and the foliage of evergreen varieties does not readily sunburn.

Euonymus patens

This is a broad, shapely shrub, 8 to 9 feet high at maturity, with large, vivid green, glossy foliage which hangs on almost all winter. In mild seasons the old foliage will be pushed off by the new growth in the spring. In late summer the plant is bespangled from top to bottom by drooping clusters of tiny greenish white, star-shaped flowers that are a godsend to the honey-bees which haunt them continuously. The fruits ripen to a pretty shade of orange, but there are not nearly as many berries as might be supposed from the abundance of bloom. In young stages, this handsome plant needs protection from rabbits which have a very strong liking for its bark.

Euonymus radicans

The Winter Creeper is a shrubby, self-clinging vine which will stick to almost any wall, up to 15 or 20 feet high. It may also be used as a ground-cover and will root all along the branches. The small, round leaves are placed regularly along the side of each shoot, forming a pretty pattern on a wall.

Euonymus radicans carrierei

Of all the vines in this family, this form has the largest, most handsome leaves, which often exceed 2 inches in length. They are lustrous green, distinctly veined, and quite evergreen. Sometimes it may be seen in the form of a low, spreading bush, although it makes a better vine. The fruits are not produced in quantity until it acquires some age.

Euonymus radicans coloratus

This variety of Winter Creeper is remarkable for the brilliant red tints of the foliage in autumn, changing to bronze and brown during the winter. Even the fresh young leaves are quite purple underneath and the veins are distinctly penciled in gray. Makes a neat ground cover.

Euonymus radicans minimus

A thoroughly good little vine with tiny leaves of dull green veined with gray. If clipped it may be used as an edging plant or as a ground-cover in a large rock-garden. It may also be planted to cover a low concrete or stucco wall.

Euonymus radicans vegetus

A stunning shrub, but if trained to a wall can be induced to climb. A handsome plant with big, hearty, evergreen leaves, and in autumn is adorned with bright scarlet and orange fruits. Best evergreen self-clinging vine for general use.

For deciduous *Euonymus*, see page 124

Hedera helix**HEDERA**

English Ivy is the perfect wall-vine and ground-cover where it is hardy. Its dark, evergreen foliage is an ideal mantle for the concealment of unsightly objects in the garden, and to relieve the blank walls of buildings. Ivy withstands almost any amount of abuse, and can be trimmed and sheared almost indefinitely. Where the climate is severe, it usually does better on a north wall.

Hedera helix baltica

This is a hardier variety which will withstand temperatures much lower than the normal form. The foliage is not as large, which in some situations is an advantage. This Baltic Ivy will extend the use of the Ivy when better known.

ILEX

THIS is the classical name of the Holly family, and the evergreens described here are generally called Hollies, although only one of the group looks anything like the true Christmas Holly. They differ considerably in their general habit and use.

Ilex crenata

The Japanese Holly is a bushy shrub or, under favorable conditions, a small tree possibly 20 feet high. It has oval, dark green, glossy leaves, more like box than Holly, and small black berries.

Ilex crenata bullata

A fine form of the Japanese Holly brought from Japan by E. H. Wilson in 1919, and for some years called *Ilex crenata nummularia*, or *Ilex crenata mariesii*. It is very bushy, with box-like foliage of dull green, and grows about 4 feet tall. Like other Hollies, the male and female flowers are borne on different plants, so to insure a crop of the glittering inky-black fruits, plant a number close together. This variety has proved to be hardier than the true Japanese Holly and will probably be a valuable hedge-plant for cold climates, but it is much too rare to be used for that purpose now, and it does make handsome specimens.

Ilex crenata microphylla

A large shrub when mature, 7 to 8 feet high. It is extremely hardy and has tiny, glossy leaves. In 1875, when Parsons introduced it to this country, he described this small-leaved form as the ideal hedge-plant, prophesying a wonderful future for it. It is difficult to restrain one's enthusiasm on seeing a mature specimen of this handsome evergreen 7 to 8 feet high, and perhaps 4 to 5 feet broad. This smaller-leaved form is more hardy than the type, and the thick, glossy foliage just clothes every twig, so the little ink-black berries are scarcely noticed. The somewhat stiff character of its youthful days is beautifully tempered in age, and it becomes, like the old boxwood, almost a member of the family.

Ilex glabra

The Inkberry is a loose, spreading shrub 5 to 6 feet high, with shining dark green leaves and a profusion of glittering black berries through the winter. It is an excellent plant for hedges or shady situations.

Ilex opaca

American Holly is a small tree 25 to 30 feet high, and nearly that much in diameter when mature, but as generally seen it has a columnar habit. The foliage and fruit are too well known to need description. But in order to have plenty of berries, it is necessary to plant several trees, since the male and female flowers are borne on different individuals. Holly is not easy to transplant. It moves best in spring, and likes a situation where it will have plenty of moisture and sunlight. Excellent Holly hedges can be made by constant trimming, and an annual shearing will always improve the appearance of the plant by making it more compact and inducing glossy new growth.

For other members of the *Ilex* family, see page 129

KALMIA

THE MOUNTAIN LAUREL received its botanical name from Peter Kalm, a Swedish botanist, who traveled in North America during the eighteenth century. It is a peculiarly American genus, but, strangely enough, not well known in America except where it is found in the wild. The Mountain Laurel belongs to the Heath family and insists upon an acid or sour soil but does well both in swampy and dry locations, and is indifferent to shade or sunlight, although the best specimens usually grow in thin woods or at the edge of dense growth. In order to succeed with Mountain Laurel, it is necessary to be sure that the soil is intensely acid, by the introduction of either sour



The wild beauty of the Laurel, *Kalmia latifolia*

leaf-mold, tan-bark, or aluminum sulphate. It is hopeless to try to grow it in limestone regions without special and arduous preparation of the soil.

Kalmia angustifolia

Sheep Laurel gets its name because the poisonous foliage is death to animals which eat it. It is a smaller plant than the well-known Mountain Laurel, seldom growing more than 3 feet high. The large clusters of flowers are purplish or light crimson.

Kalmia latifolia

Mountain Laurel is one of the most beautiful plants in the world, and no one who has seen its massed pink glory on the Appalachian Mountains needs to be told what a marvelous subject it is for landscape use. Individual plants are not nearly so impressive as single plants of rhododendrons, but the rhododendrons cannot hold a candle to the Mountain Laurel when grown in quantity. During the winter, Laurel is a much happier plant than most rhododendrons, and, being a native of the mountain-tops, is perfectly hardy in any situation. It is a splendid subject for naturalizing along roadsides.

LEIOPHYLLUM

Leiophyllum buxifolium

The Sand Myrtle is a loosely arranged little shrub about 18 inches high, with foliage like boxwood and a spreading habit similar to daphne. In midsummer it covers itself with small, pale pink flowers. This, also, is an acid sun-loving plant and needs plenty of water but will withstand considerable shade.

LEUCOTHOE

Leucothoe catesbaei

Leucothoe is a pretty little shrub which produces long sprays of glossy green leaves, usually red on the under side and sometimes mahogany colored on the upper surface in the autumn. It has an arching, spray-like habit, suggestive of a fern, very useful for low planting in the foreground of taller evergreens. The showy fragrant white flowers are borne in long clusters hanging from the base of each leaf, just like a miniature wistaria. The lasting beauty of this plant is in its foliage, as proved by the untold quantities of its sprays which are sold by florists for Christmas decorations.

LONICERA

Lonicera nitida

This is a charming, vigorous shrub attaining 5 feet in height, with small, box-like foliage of glittering green. It makes an excellent quick-growing hedge in climates where it does not freeze back. North of New York City it needs considerable shelter.

For other Honeysuckles (*Loniceras*), see Deciduous Shrubs, page 132.

MAHONIA

Mahonia aquifolium

The Oregon Holly-Grape is closely related to the evergreen barberries. It has large, spiny, metallic-looking leaves which turn bronzy red in autumn, and in spring and summer it produces very ornamental flowers and fruits. Properly sheltered and cared for, in eastern United States it will grow 3 to 4 feet high, giving the effect of some strange, exotic holly. We consider it one of the most attractive evergreens of easy cultivation.

PACHISTIMA

Pachistima canbyi

A dwarf, trailing shrub rarely exceeding 1 foot in height, with small, regularly disposed leaves which remain glossy green all winter. It is a handsome little evergreen for the rock-garden or stony slope, and may be used as a border to evergreen shrubbery. It has a remote resemblance to a dwarf euonymus.

PACHYSANDRA

Pachysandra terminalis

Japanese Spurge is an extraordinarily useful ground-cover. It is scarcely big enough to be called a shrub, seldom rising more than 8 inches high, producing a whorl of leathery, green foliage which holds its color perfectly all winter. It grows admirably in dry, shady places, and should be planted close together in order that the tops may protect the roots until it begins to run. This Spurge is particularly valuable for planting under large trees where grass refuses to grow. The greenish white flowers are produced in early summer, and the waxy white berries which are occasionally seen in autumn are very attractive.

PHOTINIA

Photinia glabra

A moderately hardy, extremely beautiful shrub 8 feet high. Its holly-like leaves are 5 to 6 inches long, flat, very glossy, and brilliant green. The small white flowers are followed by large brilliant red berries in enormous clusters.

For another *Photinia*, see *Deciduous Shrubs*, page 137.

PIERIS

Pieris floribunda

At one time the late Dr. Wilson said this Mountain Andromeda and the laurel were the finest broad-leaved evergreens for the northeastern section of the state, and after any severe winter the cheerfulness of this mountain denizen justifies that recommendation. The leaves are about the same size and shape as its Japanese brother, but retain their rich dark green hue throughout winter, and the flower-spikes are more showy as they stand up well above the foliage. When happily placed, it will develop a mound 3 to 4 feet tall and twice as broad—a splendid thing.

Pieris japonica

In the ideal, moist, half-shaded place, the Japanese Andromeda will make a rugged bold shrub 3 to 4 feet tall, and almost as broad. The leaves of *Pieris* are not arranged in fern-like sprays as in *Leucothoë*, and are not as large, but are attractive in their rich green summer coat, and more so when the warm bronze and reddish tints are assumed in winter. The graceful pendants of white flowers, although partially covered by foliage, are a feature, and expand in very early spring, when a bush of any size is indeed a glorious sight.

POTENTILLA

Potentilla tridentata

It seems senseless to call this plant a Cinquefoil for it has three leaflets and not five. It is a tiny bushlet that can scarcely be called a shrub at all. Really, it is an evergreen herb for the rock-garden, where it makes a mat of handsome foliage covered with a cloud of midget strawberry blossoms in May and June.



Pieris japonica



Native Rhododendrons in their glory. The showy plant in front is *Rhododendron carolinianum*

PYRACANTHA

FIRETHORNS are closely related to hawthorns and crab-apples, but are more showy in fruit than in flower. Both the Firethorns described here are slightly tender in severe winters and are best planted near some sheltering wall in full sunlight.

Pyracantha coccinea

The Scarlet Firethorn is a spiny, dense shrub 6 feet high, with small, light green leaves retained almost until spring, and large clusters of scarlet fruits. The intricate branching system makes this a splendid hedge-plant.

Pyracantha coccinea lalandi

In Laland's Firethorn we have a different character. After passing its gangling youth, it will develop into a 10-foot specimen, roughly shaped like an inverted cone. The long, slender branches, ascending from the ground, are punctuated with stubby laterals which bear the generous bunches of brilliant orange-red berries. But this glorious shrub is seen to best advantage when trained on a wall. It is singularly adapted to that use, and the rich deep green foliage acts as a splendid foil for the amazing quantities of berries, justifying the common name, Firethorn. Spectacular, yes—but in a dignified way.

RHODODENDRONS

RHODODENDRONS are the boldest and showiest Evergreen Shrubs in gardens where they can be made to grow. Like the Azaleas, they require a sour soil and plenty of moisture. The species described here are perfectly hardy and keep their foliage in good condition through the winter months, blooming abundantly at the proper time during the summer. They are all natives of the Appalachian Mountains, and perfectly adaptable to the North American climate wherever the soil is suitable. The hybrids have been developed from Asiatic species crossed with American varieties, and while they are more adaptable to garden conditions, they are not always so hardy.

Rhododendron carolinianum

A bushy plant with rather narrow foliage, eventually reaching 4 to 6 feet in height. Compact clusters of very charming pink flowers are produced abundantly in May and June. Plenty of sunlight is necessary for its perfect development.

Rhododendron carolinianum album

Exactly the same as the type, except that the flowers are snowy white and the foliage a little larger.

Rhododendron catawbiense

This handsome, broad-leaved Rhododendron thrives in partially shaded places and produces compact clusters of dark rosy purple flowers. It is one of the parents of most of the Rhododendron hybrids, and distinctly valuable.

Rhododendron laetevirens

Among the dwarf species this is apparently the least fastidious as to growing conditions. It slowly develops into a neat, well-furnished shrub, 3 feet tall and broader in diameter. The small, pointed leaves densely clothe the short branches, and form a perfect background for the mass of delicately fashioned little flowers, which rather impress one as being pale rose fairy bells.

Rhododendron maximum

The Great Laurel or Rosebay of the Appalachian woods will grow in dense shade or partial sunlight. Where it is happy, it flourishes as enormous bushes 6 to 15 feet high, with long, lustrous foliage and an abundance of delicate, clustered flowers of pale pink and white during May and June. The most stately and spectacular of our native Rhododendrons, it has been largely planted wherever landscape effects of dignified elegance are desired.

Rhododendron minus {punctatum}

A rather rare species from the Piedmont region of the South. It branches freely and has rather small foliage. The clusters of pink flowers are curiously spotted with green, and, unfortunately, partially covered by the foliage.

Rhododendron punctatum

See *Rhododendron minus*.

RHODODENDRON HYBRIDS

FROM *Rhododendron catawbiense* and various European and Asiatic species, a number of vigorous hybrid forms have been raised which are superior to the natives in ease of culture. The foliage is better, they transplant easier, and make more compact and contented bushes. Their blooms are large and are produced in enormous clusters. In most cases, the colors are much superior to those of the wild types. The only drawback to Hybrid Rhododendrons is their scarcity and relatively high cost. In former days they could be imported from Europe freely and were largely used on wealthy estates for grandiose effects, but since their importation was shut off by the Federal Quarantine, it has taken many years to work up an adequate stock.



One of the noblest Rhododendron Hybrids, *Album Elegans* bordering a woodland path

Abraham Lincoln

Flowers are bright rosy crimson, of a clear, piercing shade, very showy.

Album Elegans

This makes a tall, narrow plant with large trusses of blush-pink flowers which change to pure white.

America

Recently imported, with flowers of an unusually clear shade of red.

Amphion

One of the most desirable varieties, with enormous trusses and splendid foliage. The flowers are clear, glistening pink with large, white centers.

Atrosanguineum

A most vigorous type with blooms of dark blood-red, and splendid foliage, and compact habit.

Boule de Neige

Dwarf, mounded bush several feet high, with large clusters of snowy white blooms. Exceedingly hardy, it is the finest of dwarf varieties.

Caractacus

A gorgeous, well-known, old variety with blooms of dark purplish crimson.

Catawbiense Album

This form of the southern native Rhododendron has particularly good foliage and grows very rapidly into a handsome shrub. Flowers are white.

Catawbiense Grandiflorum

Another selection with brilliant violet-rose flowers. Vigorous and hardy.

Charles Bagley

Noted for its brilliant cherry-red color which is very effective in the landscape. Rather tall grower.

Charles Dickens

The blooms are a gorgeous shade of dark, rich crimson. Not a vigorous grower but it is one of the best-known and handsomest varieties.

Cunningham's White

A noble plant 4 to 6 feet high with long, lustrous foliage, smothered in clusters of pure white bloom early in the season. Adaptable and vigorous.

Delicatissima

Dainty pink flowers so pale as to be almost white at times. A good grower.

Dr. H. C. Dresselhuys

Glittering crimson flowers and trusses of unusual size. One of the best reds, recently imported.

Edward S. Rand

An unusual sort with rich crimson flowers with a dark eye.

Everestianum

Large trusses of frilled flowers delicately shaded with lilac-pink and lightly spotted greenish black. It has splendid foliage and makes a magnificent compact specimen.

F. D. Godman

Unusually large rich crimson blooms with dark blotch make this variety excellent for massing.

H. W. Sargent

This is a fine bright red variety with enormous trusses useful for specimens and landscape use.

Ignatius Sargent

Produces exceptionally large trusses of shining rose-scarlet flowers.

Kettledrum

An old variety, largely planted because of its brilliant crimson color.

Lady Armstrong

A dainty, clear, light pink variety lightly spotted with green and black.

Mrs. C. S. Sargent

Gorgeous dark blooms of glowing pink. Has distinct, wavy foliage.

Old Port

A very distinct variety with rich purple or plum-colored flowers.

Parson's Rubrum

One of the old standbys of deep glowing crimson with a vinous undertone.

Purpureum Elegans

An excellent variety with large, light purple or dark lavender flowers.

Purpureum Grandiflorum

A similar variety but much darker and richer in color. Best in masses.

Roseum Elegans

Popular brilliant rose-pink Rhododendron. Vigorous and hardy, this and Everestianum are the most reliable of all hybrids. Splendid foliage.

Roseum Grandiflorum

Clear pink flowers in unusually large and handsome trusses.

Roseum Superbum

An especially handsome bush with large clusters of rose-pink flowers.



A gorgeous specimen of the Hybrid Rhododendron, *Roseum Elegans*.
The flower-heads are nearly 8 inches across

Vaccinium vitis idaea**VACCINIUM**

The Foxberry has a plethora of common names. It is called Mountain Cranberry, Cowberry, and even Partridge Berry. The creeping plants with shining, dark green, oval leaves, are adorned with bell-shaped, pinkish flowers, followed by bright red berries. Native of the Far North, it is occasionally useful in cool shrubby borders where the striking red berries add brilliance to the picture. Rather a difficult subject but most worthy of the effort to establish a "mat."

VIBURNUM**Viburnum rhytidophyllum**

Many people like the Leathery Viburnum for its vigorous, bushy habit, 6 to 8 feet high, and the rough, prominently veined leaves, similar in shape and size to those of a rhododendron, which are lustrous green above and woolly gray beneath. The flower-buds are produced in autumn and open in spring, if they are not frozen. Its berries are glittering red. A sheltered location is necessary and light shade should be given to prevent sun-scald of the leaves during the winter.

VINCA**Vinca minor**

The common Periwinkle or Myrtle is used everywhere as a ground-cover. It succeeds equally well in sun or shade, and can be grown in moist or dry soil, on a bank, or almost any place where it is desirable to hide the ground. The flowers are large and blue, but relatively unimportant. Myrtle and Pachysandra are probably the best ground-covers yet discovered which are dependably hardy and evergreen in the climate of eastern North America. Of these the Myrtle is the least expensive, and probably the easiest to keep in first-class condition.

YUCCA**Yucca filamentosa**

The books say that Yucca is sometimes called "Adam's Needle," but no one in the East ever called it that. It is a plant of tropical aspect, native to the deserts of the western United States. The long, strap-shaped, woody leaves are remotely like those of an iris, and it is scarcely just to class it as a shrub in this part of the country. During midsummer it produces a tall, 6 or 7-foot spike, crowned with an enormous cluster of yellowish white flowers which look like tulips upside down. Much used as a landscape plant, it is very conspicuous in winter when its spiky, exotic foliage contrasts most strikingly with the snow.

*A glorious tree is the old gray oak:
He has stood for a thousand years,
Has stood and frown'd
On the trees around,
Like a king among his peers. . .*

GEORGE HILL



Deciduous Trees

ONE evening before the World War, I was sitting about a Canadian wood's campfire, 40 miles from a railroad. We were talking about the trees, those trees of the big woods that make one feel so utterly unimportant.

One of the company was a magazine editor. Suddenly he turned to me and said: "Say, old man, why don't you write for us a series of tree tales? A tale a month for the next two years."

For two years after that, whenever I motored any distance, always took my camera along, and was forever taking photos and making inquiries for interesting trees, especially those having some historic association.

At the end of those two years my appreciation for our Deciduous Trees had decidedly multiplied. In fact, became quite a hobby.

You know, friends, there are a lot of you who don't realize how rich this country is in its trees.

And for that matter, what a fine collection of them we have right here in this nursery.

Am making that last remark with an idea of being helpful to us both.

ACER

WE NEED not eulogize the Maples. The species in its many forms is familiar to everybody. It is a vast family including an enormous number of species, some of which run into many varieties. All Maples are conspicuously good trees for shade and ornamental purposes, and they are especially decorative in the autumn when the foliage changes to many brilliant tones of red and yellow.

Acer dasycarpum

Quick-growing and graceful, the Silver Maple has deeply cut, dark green foliage, silvery white beneath. When mature it is 80 to 120 feet high with a noble trunk. In the autumn the foliage is a sunny mass of golden yellow.

Acer dasycarpum wieri

Wier's Cutleaf Maple does not grow as large as its parent, the Silver Maple, and has slender, drooping branches thickly hung with lacy, shredded foliage. It is one of the most ornamental subjects and is widely used where a specimen of extreme elegance is desired.

Acer ginnala

The Amur Maple is sometimes considered a variety of the Tatarian Maple, *Acer tataricum*. It is really a large shrub of dense, twiggy habit, reaching 12 to 20 feet high, and is much used for the brilliant autumnal coloring of its foliage.

Acer palmatum

Japanese Red-leaved Maples are really shrubs and will be found listed in the Deciduous Shrub Section, page 106.

Acer pennsylvanicum

The Moosewood, sometimes called the Striped Maple, is a medium-sized tree seldom higher than 40 feet, with greenish bark distinctly striped with white. Its foliage turns yellow in autumn, and its dense, intricate branching is interesting in winter.

Acer platanoides

Planted everywhere as a street tree, the Norway Maple has a low-branching habit which is sometimes a source of trouble. Nevertheless, it is widely popular because it holds its foliage until late autumn and grows quickly into a shapely specimen seldom more than 80 feet high.

Acer platanoides globosum

The Globe Maple is a dwarf, round-headed variety which we graft on stiff stems 6 to 8 feet high to make a ball-like top. It is very useful for formal effects.

Acer platanoides schwedleri

Schwedler's Maple has the most gloriously colored foliage in the spring that it is possible to conceive, running riot through brilliant shades of scarlet, red, and purple. During the summer the leaves turn deep ruddy green. The tree has a graceful habit and attains majestic proportions within a short time.

Acer rubrum

A lofty tree reaching 120 feet when mature, the Scarlet Maple is attractive at all seasons for its excellent habit. The fiery red blossoms appear early in the spring, and the tree turns red again in late autumn, with probably the most brilliantly colored foliage of any of the family. This is a valuable tree for street and park planting, and is well adapted to low, swampy land.

Acer saccharum

Very useful as a street and park tree because of its dense, upright growth, the Sugar Maple may reach 100 or 125 feet in height under favorable conditions. Its foliage is particularly brilliant in autumn, and it does well in almost any location. This is the tree which produces the Maple syrup and sugar of commerce, and is frequently planted in large groves or "bushes" for that purpose.

How Maple Sugar Was Discovered



About fifteen or so Vermont miles from Calvin Coolidge's old home town, lives my Yankee friend, Hiram Stokes.

Every March when the Maple tree sap begins to run, I get a letter from him. All it ever says is: "Sap's a-running. We'll be looking to hear when you are coming up."

Sitting around the fire some nights we just naturally get to swapping lies. Last time he told me how maple sugar was discovered.

"You can lay it," said Hiram, "to a Merrimac Indian squaw named Ostaweega, wife of Chief Wilememok. One day while he was off in the woods his squaw was boiling some deer meat in sweet water—what was the same as our Maple sap.

"Seems the old gal got all bound up in a pair of moccasins she was embroidering, and let that sweet water boil pretty much way down.

"When Wilememok suddenly appeared, she dared not keep him waiting, and just dished him up that meat all stuck up with mushy maple sugar.

"The old fellow thought it was great, and went about the camp singing Ostaweega's praises. And so you see, young feller, that's the way maple sugar was let to get known."

Acer spicatum

The Mountain Maple is a large shrub or small tree rarely more than 30 feet high, much planted at the edge of groves or woods against which its brilliant red and scarlet leaves are very handsome in the autumn.

AMELANCHIER

Amelanchier canadensis

The Service Berry or Shadbush, sometimes also called the Juneberry, is an erect, bushy tree too tall to be called a shrub and too slender and wiry to be considered as much of a tree. A native of eastern North America, it loves to cling to the edge of a wood or hang over precipitous slopes, and always looks best in such naturalistic plantings when used in landscape work. The Shadbush blooms very early in the spring in innumerable clusters of snowy white flowers before the leaves appear, so gracefully arranged as to resemble an arrested snow-flurry. Its fruit is sweetish and insipid, but was frequently eaten for lack of better by the pioneers. A lovely thing when properly used, but no amount of training can ever make it a conventional "ornamental"; it must have a naturalistic location for its untamed gracefulness to find full expression.

BETULA

THE BIRCH is a famous tree. In the good old days, hundreds of schoolboys learned to read and write by the persuasion of a properly applied Birch-rod. The Indians navigated the waterways of North America in canoes made of its bark. The pioneers found a substitute for hardy English ale in a beer flavored by its roots and bark. The fire of Black Birch logs is the steadiest and clearest of flames, not excepting the brilliant clarity of burning red-gum. Children learn to chew the Sweet Birch twigs in the woods, and the paper-like bark of the White Birch has borne many a message which it was easier to write than speak. Probably every man who has ever glimpsed the multiple trunked gracefulness of the White Birch on the Massachusetts hills has yearned for a similar tree upon his own property, and has been unable to obtain it. From every point of view, Birches are romantic and beautiful trees, satisfying every need of both utilitarian and ornamental planting and could easily rank among the most popular planting material in America.



The Black or River Birch, *Betula nigra*, has the characteristic poise of the Birch family. Few trees are more graceful

Betula alba

Although the European White Birch does not have as white a bark as the American White Birch, *Betula populifolia*, it is a graceful tree 30 to 60 feet high, with pendulous branches and downy foliage.

Betula alba fastigiata

The straight, upright branches of the Pyramidal White Birch form a narrow, cylindrical tree useful for specimen and screen purposes.

Betula alba laciniata

The Cutleaf Weeping Birch is a most graceful lawn tree with slender, drooping branchlets and finely dissected foliage. It does not grow as tall as the ordinary White Birch and is best used as a single specimen.

Betula alba youngi

Young's White Birch forms an irregular, picturesque top with slender, inverted branches of much grace and character.

Betula lenta

The Sweet Birch, sometimes called the Cherry Birch or the Black Birch, is a twiggy tree with smooth, cherry-like bark, and adorned early in spring with feathery catkins. This is the tree from which Birch beer is made and various aromatic oils. It enjoys a moist location and grows in the shade of other trees.

Betula lutea

Somewhat like the Black Birch in appearance, the Yellow Birch is a valuable forest tree in the northern states. It has silvery bark tinged with orange and brown, and sometimes grows 100 feet high.

Betula nigra

The River Birch likes moisture and is a graceful tree with reddish brown, papery bark. It is highly decorative in ornamental plantings where it generally grows in clumps of 3 or 4 stems, especially along water-courses.

Betula papyrifera

The bark of the Canoe Birch was used by the Indians for making canoes and building their wigwams. It is a stout, sturdy tree over 80 feet high, with a very white trunk and a loose, open head.

Betula populifolia

The White Birch grows gracefully 30 to 40 feet high and adorns the hills and mountains of New England where fires and lumbering have forced it to produce many slender trunks about the decayed stumps of older trees. It has a feminine grace surpassing that of any tree in the forest, and is one of the loveliest things in the world.

CARPINUS

Carpinus betulus

The Hornbeam is a tough, muscular tree with excessively hard wood and beech-like foliage. If allowed to grow into specimen form, it becomes a bushy tree 50 to 60 feet high. Hornbeams form excellent game-covers for large plantations because the dead foliage is retained all winter.

Carpinus caroliniana

The Blue Beech is an American variety of the Hornbeam, dwarfer in growth, with foliage very similar to that of the Beech, and bright blue-gray bark. It is an attractive, slow-growing tree, with small pendulous branches and should be planted in the spring. Foliage turns scarlet and orange-yellow in the autumn.

CATALPA

Catalpa bungei

Umbrella Catalpa is really a bushy form of *Catalpa bignonioides* grafted on the top of straight stems where it makes a dense, round head of umbrella shape much appreciated by those who dote on formality.

CERCIDIPHYLLUM

Cercidiphyllum japonicum

The Kadsura Tree develops from a slender, pyramidal sapling to a bushy tree 50 to 80 feet high, usually with several trunks. Its handsome, round or heart-shaped foliage is especially attractive, being purplish pink when unfolding, then becoming green and bronze, turning scarlet and gold in the autumn. The curious unisexual flowers are inconspicuous, and are followed by short seed pods.

CERCIS

Cercis canadensis

A slender, graceful tree 15 to 20 feet high, the Judas Tree or Redbud grows naturally throughout eastern United States, and is one of the chief adornments of the early spring landscape. Before the leaves come out, the branchlets are covered with clusters of small purplish pink pea blossoms, which are very charming when associated with the red cedar and the dogwoods, a combination of which Nature seems to be especially fond.

Cercis chinensis

Chinese Redbuds are similar little trees with larger, rounder leaves and a more shrubby habit in cultivation. The purplish pink flowers are nearly twice as large as those of their native relative and noticeably darker.

CHIONANTHUS

Chionanthus virginica

The Fringe Tree is a graceful, large shrub or small tree, with several trunks, rather large, rich green foliage, and loose, hanging clusters of greenish white, fringy flowers in early summer. It is a fragrant, handsome native, useful in border plantings and at the margin of a woods, especially in moist ground. The plum-like fruits are blue-black.

CLADRASTIS

Cladrastis lutea

Among native flowering trees the Yellowwood, with its wide, graceful, 40-foot head, is one of the most beautiful. Its white, pea-like blossoms are produced in drooping panicles somewhat like those of the wisteria, and the handsome foliage turns brilliant yellow in the autumn. The wood was formerly used to make a yellow dye. An interesting and beautiful lawn tree.



A clump of Dogwoods, *Cornus florida*, is a glorious picture when in bloom

A SPRINGTIME PROPHECY

*If the oak's before the ash
Then we're sure to have a splash;
If the ash comes 'fore the oak,
Then we're sure to have a soak.*

ANON.

CORNUS

THE MEMBERS of the Dogwood family have had a hard time making up their minds whether to be trees or shrubs. The larger members of the genus are definitely trees, while the smaller ones can no less certainly be classified as shrubs. The species are various and valued for different qualities. The Flowering Dogwoods are trees and are consequently listed here. Those species whose decorative value lies in their bark and berries will be found among Deciduous Shrubs on page 117.

Cornus florida

The common Dogwood of eastern North America is one of the handsomest trees in the world at all seasons. In the spring its large white flowers are spectacularly beautiful; in the autumn its glittering red berries, clustered in a nest of glossy foliage, are ornamental to the highest degree. When the robins have eaten the berries, the foliage turns various shades of pink, crimson, scarlet, and maroon,

Dogwood



OW came it to be called "Dog," do you know?

Ran across an old English gardener yesterday who said it was because they used to take the bark and make a concoction with which to wash mangy dogs.

There's also a legend that in the days of Cromwell the best gun-powder was made from the charcoal of that wood. Because it barked so when it went off, the soldiers called it dog-powder. Which name, in turn, just naturally got back to the wood itself.

In boyhood days, whenever I visited my Grandfather, he would open up his old-fashioned tall clock and show me the wooden works. He never failed to mention that they were made of Dogwood.

The old clock is still tick-tocking, so reckon it must have been the bull-dog variety of Dogwood, the way that old clock hangs on.

Speaking of which reminds me that you will go a long ways before finding an equal to the Dogwoods in our nursery. As much as we like having them around, admittedly some are for sale, at worthwhile prices.

and falls late. During the winter the massed twiggy branches make a lacy pattern of intricate beauty. There are no trees or shrubs which possess a larger measure of attractiveness throughout the whole year.

Cornus florida rubra

The Red Dogwood is similar in all respects to the common variety except that the flowers are various shades of pink. It is very beautiful for interplanting with the white variety, and good specimens are always in demand. We have been careful to propagate only the best color.

Cornus kousa

The Japanese Dogwood is a somewhat larger tree with creamy white flowers borne after the foliage has developed. The blossoms are followed by large, brilliant red fruits which are also attractive to birds. This is a stunning new tree from China, and is generally considered to be superior to the American Dogwood in clearness of color and profusion of bloom.

Cornus kousa chinensis

Chinese Dogwood was brought to the Arnold Arboretum from China by E. H. Wilson in 1907. The flower-heads are extremely large, frequently 5 to 6 inches across, the white bracts overlapping the button-like mass of real flowers in the center. Experts have acclaimed this Dogwood as the finest of Chinese plants introduced to America. Its flowers are produced in June and hang on in excellent condition for nearly a month. The fruits are like large strawberries, and very much enjoyed by the birds. Its foliage turns scarlet in autumn.

CRATÆGUS

THE HAWTHORNS are closely related to the crab-apples and other tree-like members of the rose family. They are all spitefully thorny and make dense, round-headed trees of picturesque appearance, with handsome foliage and showy fruits. The Thorns are very hardy, grow well in exposed positions in full sunshine, and in almost any soil. Their bold, rugged, branching habit is very attractive in winter. In fact, at all seasons of the year, Hawthorns can be relied upon to provide beauty of color and form of an unusual type. They can be used advantageously in great quantities by all landscape designers, both on private estates and in public parks.

Crataegus carrierei

Carrière's Hawthorn is a small hybrid tree raised in France. It grows about 20 feet high, has broad, spreading branches with terrific spines, lustrous foliage, and drooping clusters of white flowers followed by brilliant orange fruits.

Crataegus coccinea

Probably the correct name of the Thicket Hawthorn is *Crataegus intricata*. It is more of a shrub than a tree, seldom more than 10 feet high. The large white flowers are followed by abundant reddish brown fruit. This variety makes an almost impenetrable hedge.



A planting of Hawthorns of various varieties yields an angular irregularity of forms which is refreshing in formal plantings

Crataegus cordata

Another name of the Washington Thorn is *Crataegus phanopyrum*. It is a 30-foot tree, with long, straight spines and clustered white flowers followed by brilliant scarlet fruits.

Crataegus crus-galli

The European Cockspur Thorn has decorative, wide-spreading, slightly drooping branches and slender, sharp spines. It is a mass of white blossoms when in bloom, and in the autumn the clusters of brilliant red fruits are matched by the orange and scarlet of the foliage. No other Hawthorn has such thick, glossy foliage.

Crataegus mollis

A sturdy little tree nearly 30 feet high, the Downy Hawthorn has wide, maple-like foliage and clusters of white flowers dotted with red at the center. The fruits are pear-shaped, brilliant scarlet, and do not hang on very long, but are sometimes gathered for making jelly. This is a very ornamental little tree worthy of extended use.

***Crataegus oxyacantha* {*monogyna*} ***

There are two distinct species which are called English Hawthorn. They are much alike, and it is difficult to say which is which. *Oxyacantha* is the true English May or Hawthorn. It is a shrub or small tree about 15 feet high, with spreading branches and stout spines. The leaves are broad, the 3 to 5 lobes much toothed. Its flowers are white, in large clusters, and the fruits scarlet with two stones in each berry. In *monogyna*, the berries contain only one stone.

Double White. The Double White Hawthorn is a form of *Crataegus monogyna*, with clusters of small, tiny, rose-like flowers.

Double Pink. Also a form of *monogyna*, and has small flowers of very pretty pale pink.

Paul's Scarlet Thorn. This is a brilliant red, double-flowered variety of *Crataegus oxyacantha*, one of the choicest ornamental trees in existence.

Crataegus punctata

The Spotted Hawthorn is a robust little tree 25 feet tall, with wide-spreading branches and fewer spines than most of the family. The flowers are large, white, followed by big clusters of dull red fruits with tiny darker spots.

FAGUS

THE BEECHES are tall, tough, symmetrical trees with smooth, light gray bark and dark green foliage practically immune to insects and fungus. They prefer dry, deep sandy or limestone soils, and when young will endure considerable shade. Beeches planted close together grow into a dense copse with roots at or near the surface and tall, clean trunks which are very useful for timber. Isolated Beech trees are extraordinarily handsome, and the smooth, clean bark offers a tempting surface upon which small boys carve their names and callow youths cut lovers' knots, entwining initials, amorous symbols, and dates to record their tender passions. In fact, an old Beech in almost any neighborhood is usually as full of inscriptions as a monument, carrying the romantic record of generations of youthful hopes and aspirations.

Fagus americana

The American Beech is a lofty tree with a very light gray bark and large, handsome foliage which turns brilliant yellow in the autumn. Its sweet nuts, which are borne in little burs somewhat like those of the chestnut, are eagerly gathered and eaten by children.

Fagus sylvatica

European Beeches are somewhat smaller than the American species, and in old age assume a much more gnarled and tortured appearance, with the roots rising out of the ground in heavy, grotesque convolutions. This Beech is one of the oldest cultivated trees, with a history that is bound up closely with that of the human race.

Fagus sylvatica asplenifolia

The Fern-leaved Beech is remarkable for its very narrow, deeply toothed and lobed foliage, but otherwise resembles the European Beech.

Fagus sylvatica fastigiata

A pyramidal tree of narrow, upward-branching, columnar habit useful for isolated specimens, tall hedges and screen plantings.

Fagus sylvatica pendula

The Weeping Beech is characterized by broad, downward sweeping branches, bending tortuously to the ground. It is a fine ornamental specimen.

Fagus sylvatica riversi

Dark purple foliage and compact habit make the Purple Beech one of the most emphatically decorative trees in existence.

Fagus sylvatica tricolor

Has curious pale foliage which is almost white, spotted with green and tinged at the edges with pink. It is a queer ornamental variety less vigorous than more normal forms. More interesting than beautiful.

FRAXINUS

Fraxinus americana

The White Ash is a tough, long-enduring tree of rapid growth, useful for street planting, forests, and specimen use. When left to itself in a moist location on sweet or limestone soil, it will grow 100 to 120 feet high. It has a stiff, upright habit, and its long, compound leaves turn a fine shade of golden yellow and drop early in the autumn.

GINKGO

Ginkgo biloba

One of the oldest things in the world is the Ginkgo tree. It is a hang-over from prehistoric ages, and has no close relatives among any other living plants. Millions of years ago, trees resembling Ginkgos were common throughout the northern hemisphere, but they exist now only as fossils. In the plant family, the Ginkgos belong in the ranks of the conifers, but the tiny, fan-like leaves are

deciduous, and the method by which the Ginkgo achieves fertilization is one of the most astonishing things in nature, and will repay investigation by any curious person. Young Ginkgos have a picturesque, erratic habit, usually with a tall slender leader and one or two large branches jutting off at unexpected and outlandish angles. As the trees mature, they develop an enormous, round head closely resembling that of a well-grown oak, and their foliage is impervious to insect attack and the difficulties of city life. Therefore, the Ginkgo is ideal for street and park use, in addition to its antiquity and biological interest.

Ginkgo biloba fastigiata

The Columnar Ginkgo is a narrow, cylindrical tree without the rounded head of the species. It is useful for avenue planting or as accents.

GLEDITSIA

Gleditsia triacanthos

Honey Locusts are broad-headed, very spiny trees with feathery foliage and inconspicuous flowers followed by long, twisted pods. Under favorable conditions they will grow to great size, but ordinarily, they are small, bushy trees valued chiefly for foliage effect. Particularly useful for city streets as this Locust withstands such conditions admirably.

GYMNOCLADUS

Gymnocladus dioica

A handsome shade tree of easy culture, the Kentucky Coffee Tree will grow 100 feet high. It has curiously compound leaves of glossy green and not very showy greenish white flowers in slender swinging clusters which are followed by attractive, pea-like pods 10 inches to a foot long. It makes a very picturesque and handsome lawn ornament throughout the year.

HALESIA

Halesia tetraptera

The Silver Bell or Snowdrop Tree, also sometimes called the Lily-of-the-Valley Tree, is a most attractive round-headed, bushy little tree with horizontal branches and rather ordinary foliage. Its beauty consists in the millions of small white bells which dangle in bewildering profusion from the lower side of the branchlets. Certainly, no flowering tree is handsomer and daintier than the Silver Bell when in full bloom, and is always an object of great interest and curiosity.

HAMAMELIS. Listed among Deciduous Shrubs and Vines, page 126.

KÆLREUTERIA

Koelreuteria paniculata

Varnish Tree is only one of the many names applied to this curiously beautiful, drought-resisting, ornamental subject. It is variously known in the Middle West as Pride of India and the China Tree, and all three names have been assigned to other species, so that in respect to a common name it is really an orphan. The compound foliage is composed of many small leaflets and the brilliant yellow flowers are produced in enormous panicles at the tips of the twigs. Late in the summer, numerous conspicuous bladder-shaped pods adorn its branches for many weeks. It has a rather open-headed top seldom more than 30 feet high, and has proved very useful for decorative planting in difficult locations subject to dry, hot winds. Another great asset is its adaptability to city conditions. A very handsome tree.

Laburnum vulgare LABURNUM

The Golden Chain is an irregular, small tree about 20 feet high, with long, pendulous clusters of bright yellow pea-shaped flowers hanging from its green branches, looking something like those of a wisteria. It is a very ornamental little tree but should be planted in a protected place to avoid damage which is likely to occur during periods of very low temperature.

LARIX

THE LARCH family is not very large, but it is one of the few genera which bears cones in the manner of the pines and spruces and sheds its leaves in the autumn. It is always astonishing to see the soft silvery green needles of the Larches turn bright gold and fall before winter. They are graceful trees with the characteristic pyramidal shape of coniferous evergreens, and are especially handsome in spring when every twig and branchlet is studded with rosettes of soft yellowish green needles. The American Larch, *Larix laricina*, is the tree which the pioneers knew as the Tamarack or Hackmatack, but the European and Asiatic varieties are commonly called Larches.

Larix europaea

The European Larch grows rapidly into a symmetrical tree 50 to 60 feet high, frequently taller, and is a mass of downy, feathery green throughout the summer.

Larix leptolepis

A similar tree is the Japanese Larch, not quite so tall, but quick-growing and one of the handsomest lawn trees.

LIQUIDAMBAR

Liquidambar styraciflua

The Sweet Gum is a beautiful, pyramidal tree with sharp-pointed, star-shaped leaves of vivid glossy green which turn blazing scarlet in autumn. It has a corky bark and the sweet, aromatic sap which exudes from it is frequently used in the manufacture of chewing-gum. The Sweet Gum thrives in swampy places and is one of the most beautiful features of the autumn landscape.

LIRIODENDRON

Liriodendron tulipifera

One of the noblest trees of the forest is the Tulip Tree, also known as the White-wood and Yellow Poplar. When planted closely together, the trees make tall, soaring trunks, clear of branches for 100 feet or more, with a diameter up to 3 to 4 feet. When allowed to develop naturally, they make broad, handsome tops with bold foliage and are adorned in spring with beautiful tulip-like flowers of green, orange, and yellow. The leaves turn golden yellow in autumn.



Magnolia soulangeana has a strange exotic beauty rivaling that of tropical trees

MAGNOLIA

WHILE THE MAGNOLIAS differ widely in foliage and flowers among themselves, the characteristic family trait is an exotic tropical appearance quite at variance with other North American and Asiatic plants. The deciduous Magnolias fall into two groups, those which bear their flowers before the foliage and those which bloom after the leaves have unfolded. The flowers of all species are scented, some very pleasantly so. Magnolias seem to enjoy a sloping location, in deep, moist but drained land. All Magnolias should be moved in the spring only. When the roots are active, cuts heal rapidly, but broken roots are likely to decay if they are dormant. Most kinds adapt themselves to artificial conditions of city life remarkably well.

Magnolia acuminata

The Cucumber Tree makes a broad, handsome, pyramidal specimen 90 feet or more tall under good conditions, with broad, oval foliage pointed at the tip. The flowers are relatively inconspicuous. They are greenish yellow or green, with upright petals, but the glory of this tree comes in autumn when the cucumber-like fruits crack open showing their brilliant pink and scarlet seeds.

Magnolia acuminata cordata

Its nearly round, heart-shaped foliage easily distinguishes the Heartleaf Magnolia. Also, it is the only one with yellow flowers, and they are about 4 inches in diameter. Occasionally it will bloom twice in a year, spring and autumn. Originally discovered in Georgia, its home was lost for more than 200 years, until some trees were recently discovered. Most plants offered today, however, have been derived from the first plants which were sent to France. Although considered not quite hardy for the northern climate, it is well worth a protected spot looking south.

Magnolia conspicua

The Chinese Yulan bears on its wide-spreading branches, large, white, sweet-scented flowers, 6 inches across, before the leaves appear in spring. It seldom gets more than 20 to 30 feet high, but is one of the most beautiful trees ever brought to this country.

Magnolia glauca

A shrubby little tree 15 to 20 feet high, the Sweet Bay has bluish, glossy leaves, mealy white underneath, and almost evergreen. It prefers a moist soil and produces delightfully scented white flowers, 3 to 4 inches in diameter, in May and June. The red fruit-pods, showing the scarlet seeds, add an interesting touch.

Magnolias



WHEN you mentioned that name, at once thought of a magnificent one that in both its waxen foliage and lovely blooms glorifies the southern side of General Lee's old home at Arlington.

Do you associate trees with places that way, too?

Liberty Bailey once told me that Magnolias were named after Pierre Magnol, who was one of those long-haired French professors of botany along in sixteen hundred and ninety.

In Magnol's description he mentioned how, in China, the buds are considered a great table delicacy when preserved. That they are also used to flavor rice.

John Bartram, in 1773, returned to England from a trip in the Carolinas and Georgia, and told of Magnolias having leaves a foot long. Which amusing tale is quite in line with the Spaniard who landed on a part of the Florida coast where the sand, when wet, is a sparkling yellow. He assumed his quest for gold was over and took a shipload of the worthless sand to Spain. That's why it has ever since been called Ormand Beach—Ormand being a Spanish word for gold.

But to get back to Magnolias, we have a surprisingly fine lot of them. A fact, reckon you might like to remember.

Magnolia kobus

This is a compact tree nearly 80 feet tall in Japan, but in cultivation develops a more shrubby nature. A variety "Borealis," which we are propagating, is reputed to be a great improvement. It has starry white flowers with narrow petals early in spring before the leaves unfold. One of the handsomest Magnolias, but the flowers are very scarce on young trees. The leaves are comparatively small and rough for a Magnolia.

*One lilac only, with a statelier grace,
Presumes to claim the oak's and cedar's
place,
And, looking round him with a monarch's
care,
Spreads his exalted boughs to wave the air.*

WALTER HARTE

Magnolia liliflora nigra

The Purple Lily Magnolia is a very large shrub with broad foliage. It puts forth its dark purple flowers with petals about 4 to 5 inches long, pink inside, early in the spring before the foliage unfolds, and continues until all other varieties have fallen. This Magnolia is sometimes classed as a variety of *Magnolia soulangeana*, which it resembles in growth.

Magnolia parviflora

Oyama is the name of this Japanese Magnolia which is a small tree with lovely white flowers produced in June while in full leaf. The cup-shaped flowers are almost 5 inches across, and at first are deliciously fragrant, but perhaps the most striking feature about them is the large rosette of rich crimson stamens occupying at least $1\frac{1}{2}$ inches in the center. With us it is rather an open bush, perhaps because it needs a cozy, protected corner where it will continue to throw occasional blooms throughout summer. While not so spectacular as many of its kin, it is altogether a charming variety.

Magnolia soulangeana

Soulange's Magnolia, sometimes called the Saucer Magnolia in books for no reason at all, is the common Pink Magnolia of city gardens and parks. It is a hybrid between the Lily-flowered Magnolia, *Magnolia liliflora*



The lovely flowers of *Magnolia stellata* appear with the first breath of spring

and *Magnolia conspicua*. It makes a small, many-trunked tree with gorgeous shining foliage and, in early spring, produces its enormous, pinkish white flowers more or less purplish outside and slightly fragrant. This *Magnolia* and its varieties are the showiest of the family for planting in northern gardens, and when in bloom, even one plant will dominate the garden—yes, the neighborhood, if it is a sizable specimen. A whole street in Rochester lined with this variety is a mecca for all enthusiasts every spring.

Magnolia soulangeana alexandrina

Perhaps more attractive than *Soulange's*, this beautiful form begins to flower at about the same time, possibly a little earlier, and remains in good condition for three weeks. In the expanding flowers there is a shade of rose difficult to describe but charming. There is also a white form.

Magnolia soulangeana brozzoni

An exceedingly rare variety, and, to quote an authority, "... what a pity, as it is certainly one of the finest hybrid *Magnolias* we possess, since it comes late and bears the largest flowers in this group." One flower, pressed wide open, we found to be $10\frac{1}{2}$ inches across. The plant makes a splendid bush—probably a tree, as it grows vigorously and seems quite hardy. The flowers are white flushed with purple at the outer base.

Magnolia soulangeana lennei

Considered by many as the finest and most satisfactory of all *Magnolias*. If allowed to grow naturally, it will produce a number of irregular branches and form an open, picturesque bush. Better effects can be obtained by training

a main stem for height, when it will attain 30 to 35 feet. The wood is brittle, so be careful when bending the branches. The great point of difference to other forms is seen at once in the flowers, which are like an immense, rosy purple egg, inverted. The thick petals are quite white inside and average at least 4 inches wide. Flowering late, it is rarely damaged by frost and is otherwise very hardy. The big, broad, round leaves are quite distinct, and when unfolding are flushed with red.

Magnolia soulangeana speciosa

The Showy Magnolia is white striped with purple on the outside.

Magnolia stellata

The Starry Magnolia is a big, bushy shrub 10 to 12 feet high and through, with many trunks and twiggy branches. Its semi-double, narrow-petaled flowers are shaped like the whirling stars of *Magnolia kobus*, and are produced with great abundance in early spring before the foliage appears. Fragrant.

Magnolia tripetala

Growing to 40 feet high, the Umbrella Magnolia has broad, spreading branches and enormous leaves nearly 2 feet long. The giant flowers are 8 to 10 inches across and have a disagreeable odor. It has a curious, far-away, tropical appearance, but is perfectly hardy in the neighborhood of New York City.

MALUS

TWO GROUPS of flowering trees, the Cherries and the Crabs, stand far above all others in daintiness and grace. Both are members of the great rose family, and the flowers of the double varieties resemble miniature roses. The Japanese Cherries are well advertised by the spectacular planting in Washington, D. C., but the even lovelier Crab-apples have never received justice at the hands of American planters. Wild Crabs are extremely hardy and will thrive in positions and exposures which would be fatal to the more delicately constituted Cherries. They also exhibit a greater variety in character of tree, a wider range of color in their blossoms, and in autumn are adorned with glittering clusters of fruits in shades of green, yellow, orange, scarlet, and crimson. No other flowering trees equal the flowering Crabs in profusion of bloom, and amongst other good qualities, varieties may be selected which have a restricted growth or dwarf habit so that they will never become too large and clumsy.

*In the far North stands a Pine tree, lone
Upon a wintry height;
It sleeps; around it snows have thrown
A covering of white.*

*It dreams forever of a Palm
That, far i' the morning land,
Stands silent in a most sad calm
Midst of the burning sand.*

HEINE

Malus arnoldiana

Arnold's Crab was originated in the Arnold Arboretum at Boston, and was evidently a seedling from some of the many beautiful varieties which are planted there. The semi-double flowers are pink, turning white after a few days, and droop gracefully in long-stalked clusters. In the autumn the tree is adorned with pendulous clusters of waxy yellow fruits about the size of a cherry. Its habit is compact and it is seldom more than 10 to 12 feet high.

Malus atosanguinea

In early May, every twig and branchlet of the Carmine Crab is covered with clusters of dark pink, almost crimson flowers. It is somewhat taller than other Crabs and is a handsome lawn specimen 15 feet high or more.

Malus floribunda

The Japanese Crab has bright pink buds which contrast daintily with the white, wide-open flowers. In the autumn, the tiny reddish yellow apples hang on ruddy stems, but the birds gobble them up before they have a chance to hang very long. The tree is quite vigorous and will grow to 15 feet high.

Malus halliana parkmani

An irregular, cranky little tree when young, Parkman's Crab assumes a most attractive picturesque habit as it grows older. The flowers are bright rosy red, double, and droop gracefully on threadlike pedicels. It is a gorgeous ornament to any planting, and has long been a favorite of the Japanese.

Flowering Crab-Apples



HO will be so good as to settle the dispute? Is, or isn't, the Flowering Crab a Siberian? You contend it is of Jap origin. Far be it from me to side on either side.

But if you don't mind, I'd like to remind you that our old friend and patron, Linnæus, seems to lean toward its Siberian origin. However, it is not important one way or the other.

We do know that our present Apple-pie brand of Apple is a direct descendant from the crabbed old Crab. Likewise, that the Jap flowering one has it all over all the others for beauty. In fact, it is just a shame that so beautiful a flower should have so out-of-humor a name. Happily, one forgets it when seeing their regal heads covered with a wealth of bloom loveliness.

By intention we have a goodly collection, all of them worthy of the said above description. It may be timely to mention that we might be induced to part with some of them. Suspect that fact will soon get noised about, which may or may not hold a hint for you.

Malus ioensis plena

Bechtel's Crab is a double form of the Wild Crab-apple of the Mississippi Valley. The original plant was discovered near Staunton, Ills., in 1850, and was brought into cultivation about forty years later by a man named Bechtel. It is a robust, round-headed tree with double, pale pink flowers about 2 inches across, exactly like little roses. They have a delicate violet scent.

Malus niedzwetzkyana

Remarkable for the ruddy tinge which suffuses the whole tree—the Red-veined Crab has leaves, stem, sap, bark, buds, all of reddish or purple tones. The tree gets better with age, and really does not show the stuff it is made of until it is about ten years old.

Malus prunifolia

One of the rarest and handsomest of this very useful family is the Chinese Apple. It makes a sturdy tree 15 feet high, with an enormous number of snowy white flowers followed by very large fruits of red and yellow.

Malus sargentii

Sargent's Crab is really a spreading shrub which sometimes assumes an almost creeping habit, making it suitable for small lawns and large rock-gardens. It produces an unbelievable abundance of white flowers with sparkling yellow anthers, followed by glittering scarlet fruits which hang on almost all winter.

Malus scheideckeri

The flowers of Scheidecker's Crab are double, bright pink, last a long time, and the fruit, which is produced in great profusion, is waxy yellow. The tree has a regular pyramidal habit, about 15 feet high.

Malus sieboldi calocarpa

This variety of Siebold's Crab is particularly handsome in autumn because of its brilliant scarlet fruits about the size of sour cherries. The flowers are pinkish white, borne in great abundance in spring.

Malus spectabilis

The first of the Asiatic Crab-apples brought into the western world was the Chinese Crab, grown in England and America since 1780. It is a tree about 30 feet high when fully grown. Its delicate pink flowers vary from semi-double to double. The fruit is pale yellow.

Malus theifera

One of the favorites of connoisseurs is the Tea Crab, a stiff, erect plant, 15 feet or more high, and in spring every limb, branch, twig, and branchlet is buried in a cloud of rose-pink blossoms which slowly change to blush-white.

MORUS

Morus alba pendula

Teas' Weeping Mulberry is a picturesque artificial looking tree for lawn-plantings or specimen use where a humping, fountain-like or cascade effect is desired. The variety is grafted on an erect standard stem and grows rapidly.

NYSSA

Nyssa sylvatica

The Sour Gum has a lot of common names. Some call it the Tupelo, some call it the Pepperidge, and others call it the Black Gum. It is a vigorous and extraordinarily picturesque tree, especially when it gets old, by reason of its hanging lower branches and the intricate, knotted, wavy interlacing of its upper limbs. The foliage is long, somewhat ribbon-like, brilliant green, and in the autumn each tree stands out in the landscape like a flaming torch.

OXYDENDRUM

Oxydendrum arboreum

A graceful little tree is the Sorrel tree, seldom more than 30 feet high, with a spreading dome-shaped top adorned with spiky panicles of greenish white flowers in late summer which are far surpassed by the great beauty and brilliance of its orange and scarlet foliage for many weeks in the autumn.

PHELLODENDRON

Phellodendron amurense

A handsome big tree 50 feet high, with thick, corky bark and broad, compound foliage, the Chinese Corktree looks a great deal like a black walnut, but has dark berry-like fruits.

PLATANUS

Platanus orientalis

One of the most useful street and park trees is the European Plane. It has broad, coarse foliage which resists city smoke, dust, and the ravages of insects, and carries its full summer green until late in the autumn. It makes a broad, spreading head 80 to 90 feet high, providing a dense shade, but not so dense as to prevent the growth of grass beneath it. We have found Planes useful for seashore planting, and any situation where a tough, enduring specimen is desired. For a rapid-growing tree of permanence it holds first place. From time immemorial the Plane has been greatly esteemed for its shade, for history relates the academic groves where Socrates and Aristotle held forth were planted with these trees.

POPULUS

POPLAR TREES have suffered in recent years from the evil reputation gained by the black sheep of the family. The Carolina Poplar is an enormous weed and nothing else, but other Poplars are less rapacious and have such kindly qualities of rapid growth, grace of habit, and beauty of foliage that they should not be scorned because of their erring brother.

Populus bolleana

The Bolleana Poplar is a variety of *Populus alba*, with the same glittering green leaves silvered underneath and the same gray bark. However, it is a swift-growing, slender, columnar tree a little bit more robust than the Lombardy Poplar which it resembles at a distance.

Populus nigra italica

Probably the most romantic of all deciduous trees is the Lombardy Poplar. Its slender, needle-like habit stands out like an exclamation point in the landscape wherever it is planted. In consequence, it is generally used in groups or long lines to border a road, a property line, or a stream. Because of their quick growth, these Poplars can be planted closely together as a screen. In age they assume a gnarled and venerable appearance, like the trees in the paintings of the old Italian masters.

Populus simoni

Simon's Poplar is a small tree 25 to 30 feet high. It has good shining green leaves silvered beneath, and makes a rather narrow pyramidal head.

PRUNUS

PRUNUS is a big family of small to medium-sized trees. It is a branch of the great clan of Rosaceæ and includes within its world-wide reach the Plums and Cherries of the Northern Hemisphere. Most of the species are reliably hardy, but the Cherries, especially the Japanese Flowering Cherries, are more susceptible to winter damage than the Plums. By some authorities mantle of this genus is extended to cover not only the familiar Cherries and Plums, but Peaches and Apricots as well, but the varieties of *Prunus* offered in this book are all ornamental trees and shrubs valued for flowers or foliage and considered among the most useful subjects for park and landscape decoration.



Flowering Cherries

And we call them "heathen," "half-civilized," these slant-eyed astute little people of Japan who take time to "list to Nature's teaching," when a whole nation pays tribute to beauty in the cherry blossom festivals.

Tell me, where in all the civilized nations have we its like?

Admittedly, Portland has its rose festivals. Winchester its apple blossom week. Such are only local affairs.

But *all* Japan give their hearts and souls a chance when the Flowering Cherries are in bloom.

Bills are paid. Misunderstandings are smoothed out. "Everybody makes glad."

Let us all lend our influence to the planting of more Japanese Flowering Cherries.

All tribute to President McKinley's wife who inspired the Cherry Tree planting around the Capitol basin at Washington.

If you have never been there when they are in bloom, go. Go, if you must walk to get there.

Prunus cerasifera pissardi

The Purple-leaf Plum is a slender tree about 15 feet high with dark purple foliage. Its flowers are relatively of no account, and its color is much the best in early spring. Hard pruning encourages an abundance of new growth, the foliage of which always has a higher gloss and better color than that on the older twigs.

Prunus glandulosa

See Deciduous Shrubs and Vines, page 138.

Prunus maritima

See Deciduous Shrubs and Vines, page 138.

Prunus serrulata

Japanese Flowering Cherries are fairly large trees somewhat approaching the stature of an ordinary apple tree. There are many varieties originated by the Japanese who hold the Flowering Cherries in special respect, and a good planting makes one of the most stunning decorative effects that can be imagined. The original species which we offer here has pure white, semi-double flowers. It is generally considered to be the original species from which most of the following varieties have been derived.



The Japanese Cherries of Washington are known and beloved the country over

Prunus serrulata alboplena

This is a double form of the White-flowering Japanese Cherry.

Prunus serrulata sachalinensis

Sargent's Cherry, sometimes referred to as the Yama Cherry, is a huskier, stronger tree than the type, with large, single flowers varying from white to pink. Most of the so-called Japanese Cherries are derived from this variety.

Prunus serrulata spectabilis rosea

A double-flowering, dark pink form of the Oriental Cherry.

Amanogawa. The name means "Milky Way." It is a slender, columnar tree somewhat like a Lombardy poplar in habit, and its stubby, erect branches are bedecked in spring with drooping, semi-double pink flowers of delightful fragrance.

Beni-Higan. This is the Spring Cherry, *Prunus subhirtella*. It makes a low-branched, shrubby tree covered in early April with innumerable clusters of small, single, light pink flowers.

Fugenzo. This variety also masquerades under the names of Kofugen and James H. Veitch. It is one of the most popular varieties and is adorned in early spring with a cloud of double rose-pink flowers.

***Prunus serrulata spectabilis rosea*, continued**

Hizakura. A very showy tree with crimson buds and large, double pink flowers. The name of this variety is badly confused. It is variously offered as *Hisakura* or *Ichiyo*, and is a form of *Prunus serrulata sachalinensis*.

Kwanzan. In common with most Japanese Cherries, this also is known by other names, and is frequently listed as *Sekiyama*. Its vigorous, quick-growing habit has made it very popular, and its abundance of fine, large, double pink flowers are very showy and attractive.

Mikurumagaeshi. This pleasant jumble of syllables is supposed to mean that you will turn back and look at the tree after you have left it, and it does its best to justify the name. It covers itself in mid-spring with an abundance of pale pink, delicately fragrant flowers.

Mount Fuji. Otherwise known as *Fujizan* or *Shirotae*, it is a very lovely variety, and is unique in being the only pure white *double-flowering* Cherry in cultivation in America.

Naden. This is Siebold's Cherry, *Prunus sieboldi*, under a fancy name. It is a sturdy little tree with beautiful semi-double, shell-pink flowers.

Shirofugen. A strong-growing, late-flowering variety of *Prunus serrulata sachalinensis*. The buds are blush-pink and the semi-double, open flowers are pure white.

Yoshino. The Tokio Cherry is probably the species *Prunus yedoensis*. It is a quick-growing tree nearly 45 feet high, with fragrant, white flowers in clusters very early in the spring.

Prunus subhirtella pendula

The Weeping Japanese Cherry is an artificial form created by grafting this shrubby variety at the top of a stiff, straight trunk from which its irregular, pendulous branches sweep nearly to the ground, covered with glorious pink blossoms in early spring.

Prunus tomentosa

See Deciduous Shrubs and Vines, page 138.

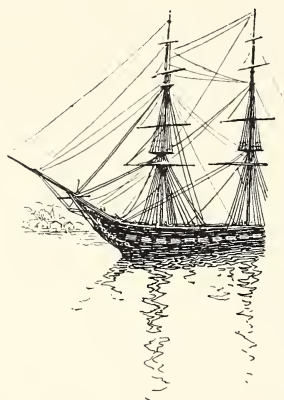
Prunus triloba plena

See Deciduous Shrubs and Vines, page 138.

PSEUDOLARIX

Pseudolarix kaempferi

The Golden Larch is a very beautiful tree with long, sweeping branches turned down at the tips, and feathery pale green foliage very much like that of a Larch. In the autumn it turns brilliant yellow. The tree is a native of eastern China and is the only species left of a genus numerous in prehistoric ages. Under good conditions, it will make a magnificent specimen 130 feet high.



The Avery Oak and Old Ironsides

When Old Ironsides was making its pilgrimage along our eastern coast ports, I drove all one night to go aboard her.

Am not going to say it was all patriotism that prompted that midnight ride. Nor were we practising to enter the tests as modern Paul Reveres.

It was because of an ancient Oak, some 16 feet in circumference, that still stands in Dedham. Seventy dollars stood between its staying standing and its being used for the original planking on Old Ironsides.

It was parson Avery's wife who, in true Barbara Fritchie fashion, came to its rescue. Years ago I saw that Oak and had wanted ever since to see Old Ironsides.

You will recall that some communities eagerly contributed Oak for the building of that famous defender of our rights. Others demanded coin of the realm.

And today it is the school children of the land to whom we are indebted for its rescue. Their contributed pennies did it.

And the Avery Oak still lives gloriously on. And seventy dollars is a fair price for a tree, even in these days.

QUERCUS

EVERYBODY knows what magnificent trees the Oaks are and how long they will endure and the symbols they have become of all that is sturdy and noble. Some people hesitate to plant Oak trees because of their presumably slow growth. While it may take two to three years for newly transplanted trees to become established, after that they grow with great rapidity and soon overtake more ambitious trees which make quicker growth in their young years.

Quercus alba

The noblest American of the tree clan. The rugged spreading branches of the White Oak form a broad open head of tremendous proportions. The bright green foliage turns a deep vinous red or purple in autumn. What tales we could spin of the famous Oaks—better not begin!

Quercus coccinea

The Scarlet Oak is a handsome tree with gradually spreading branches, forming a round-topped, open head. The deeply lobed or cut foliage turns to a brilliant scarlet in autumn.

Quercus palustris

The Pin Oak is one of the finest street trees. It takes kindly to cultivation and likes a rather moist situation. The broad, pyramidal head has a cocky tip and a jaunty swirl of outline almost too frivolous for an Oak. The foliage is deeply cut, turns rich crimson-maroon in the autumn, and a large part of it hangs till spring. It makes a moderate-sized tree, although in the open ground, with plenty of water, the Pin Oak will eventually become 100 feet high.

Quercus phellos

Willow Oaks are dark and somewhat somber, of compact, formidable habit, with long, blackish green, highly polished foliage, smooth at the edges and not indented as other Oak leaves. They are handsome trees of distinct character and will grow in almost any situation, although they prefer a streamside.

Quercus rubra

The Red Oak is majesty itself. Its lofty trunk and broad, round head soar 80 to 150 feet into the sky. It has deeply cut foliage of glossy dull green which turns dark red in the autumn. This is distinctly a tree for open air, for parks and landscape use, and is one of the finest quick-growing trees in the world after it has become established.

Salix babylonica

SALIX

The common Weeping Willow makes a beautiful, lacy tree attractive for waterside planting, with long, whiplike branches weeping to the ground. It is a very graceful tree, but withal a little mournful, and usually looks best planted at a distance from usual travel, and in small groups or singly, never in lines.

Salix elegantissima

Thurlow's Weeping Willow is a much more massive tree than *babylonica*, often reaching more than 50 feet high, with slender, yellow-green branchlets hanging from its outspread boughs.

Sophora japonica

SOPHORA

Some call this the Chinese Scholar Tree and others call it the Japanese Pagoda Tree, but under either name it grows about 80 feet high and has feathery foliage and yellowish pea-like blossoms something like those of a wisteria. Seems quite indifferent to town conditions and should be freely planted.

Sophora viciifolia

See Deciduous Shrubs and Vines, page 146.

SORBUS

THE ROWAN TREE, with the oak and ash and thorn, was one of the magic trees of the fairies. Dark legends of the "Druids of Eld" cling to the heathenish Rowan and its blood-red fruit. But the old name departed with the magic, and the witching Rowan is now prosaically called the Mountain-Ash and planted widely in the most unromantic places for the glittering color of its fruit in autumn.

Sorbus aucuparia

The Rowan or European Mountain-Ash gives little indication of its sinister history when grown on an open lawn. It forms a symmetrical, round-topped tree 20 to 25 feet high, with striking foliage somewhat like that of the sumac, and enormous clusters of scarlet-orange berries in the autumn. The fruit is very attractive while it remains on the tree, but the robins like the berries so much that there are seldom very many left after one or two visitations.

Sorbus aucuparia pendula

This weeping form has foliage and fruits of the usual type, but the branches sweep to the ground in curious, irregular curves.

Sorbus quercifolia

The Hybrid Mountain-Ash has leaves somewhat resembling those of an oak, hence the botanical name. It, too, bears showy orange-scarlet fruit.

STYRAX**Styrax japonica**

This is a jolly little tree usually called the Japanese Storax. Its pure white, bell-shaped, little flowers hang all along the branches in June and July. It is a good lawn specimen, very hardy, but seldom grows more than 15 feet high.

Styrax obassia

A rare tree of the Storax family from China. The artificial name of Snow Bell has been given it, but so far as we know it is seldom used. It is a round-headed tree nearly 30 feet high, with circular foliage, and in the spring is covered with a multitude of drooping, bell-shaped flowers a great deal like those of halesia and likewise is very handsome when viewed from beneath, where the mass of the innumerable blossoms can be appreciated.

TAXODIUM

Taxodium distichum

Like the larch, the Bald Cypress is one of those trees which seems to be an evergreen but is not. It belongs to the great family of conifers and produces needle-like foliage in tufts and rosettes in early spring and sheds it in the autumn. Its symmetrical, conical habit resembles that of a spruce in a general way during the summer. Like the larch, it blends well with coniferous evergreens and is especially useful near dwellings where summer shade is desired and plenty of winter sunlight. The Bald Cypress is an intensely interesting and mysterious tree as it grows in the great southern Cypress swamps. In the North it is more conventional in habit, although it will attain great size and dignity with age. In its young years it should be given a sheltered position in severe climates.

TILIA

TILIA is the botanical name for a group of trees variously known as Linden, Lime, Basswood, and Whitewood. In England, Lindens are Lime trees; on the Continent, Lime trees are Lindens; and in America there are no Lime trees and the native Lindens are called Basswood or Whitewood. Many of the species are very much alike, and the names of them have become very much confused in cultivation. All are trees of comparatively rapid growth, regular in habit, and inclined to shed their foliage very early in the autumn. The fruits are interesting little nutlets, hung in clusters from the middle of a leaflike wing which detaches itself from the tree and floats away like a miniature airplane. The Lindens are very satisfactory, ornamental trees and are frequently planted along the streets and for avenue effects. They thrive in almost any soil which is not too dry, and do best where the sun is not too hot.

Tilia americana

The Basswood or American Linden is a native of the river-bottoms and stream-sides of the Middle West. It is a handsome, round-headed tree with large, heart-shaped foliage, covered in June with clouds of greenish white blossoms which are the favorite pasturage for millions of honey-bees, and Basswood honey is one of the famous delicacies of that favored land. The tree is also related to the bee industry by the fact that the best frames for comb-honey are made from its straight-grained, white wood. It is one of the finest native trees, but people who dislike bees should stay away from it when it blooms.

Tilia cordata

A massive tree nearly 100 feet high, the Small-leaved Linden is much like other Lindens and is useful for street, avenue, and specimen planting. The small leaves are roughly heart-shaped, and it is the latest Linden to flower.

Tilia grandifolia

The Large-leaved Lime or European Linden is a robust, round-headed tree over 100 feet high, and may generally be considered the most vigorous of the Linden family. It is variously offered as *Tilia grandifolia*, *Tilia europæa*, and *Tilia platyphyllos*, the last being the commonly accepted name.

Tilia grandiflora aurea

Although similar in general character to the European Linden the yellow twigged form is much more decorative and cheerful in winter when the bright yellow bark is a distinct note.

Tilia vulgaris

This tree is known as the Common Linden, and is one of the best species for general planting. It has big, broad foliage and a massive head reaching 100 to 120 feet. The bright green leaves are retained until late fall.

ULMUS

PROBABLY no trees are more favorably known or more generally admired than Elms. They range all over the northern hemisphere and are recognized at once by their oval, sharp-toothed leaves set obliquely in two ranks along the young branchlets. The tough, stringy wood is hard and heavy and is much used for packing-cases, barrels, wheels, agricultural implements, and boats, and every American boy knows something about the comestible qualities of the young bark of the "slippery ellum."

Washington Elm

Some fifteen years ago, Mr. William Flemer, Sr., while on a trip through New England, persuaded Mr. T. D. Hatfield to guide him through the beautiful estates in that vicinity. Arriving at Wellesley, Mass., Mr. Hatfield indicated a vigorous young Elm growing on the Library grounds as being the result of a graft taken by Jackson Dawson from the famous Washington Elm at Cambridge. It was under this old tree that George Washington assumed command of the American Army on that memorable morning of July 3, 1775. Naturally,

Mr. Flemer was so interested that Mr. Hatfield gave him some budding wood from the Wellesley specimen to perpetuate the spirit of this historical old tree.

These buds were inserted at our nursery and grew splendidly. Beginning in 1919, we offered these young trees under the name of Wellesley Elm, with no mention of its historical significance. Since that time we have persistently grown some of this same Elm, and now are in the fortunate position of being able to offer a few young trees—direct descendants of the famous Washington Elm—for planting during this bicentennial year, in memory of George Washington.

Ulmus americana

None of the species is handsomer than the straight, old-fashioned American Elm, a giant which is at once majestic and graceful and at home everywhere in northeastern United States. In the open fields it assumes a broad, triangular silhouette and, as a street tree, it lifts its overarching branches high above the avenue of traffic. The American Elm is seen at its finest in the old villages of New England where the broad streets were planted two hundred years ago with Elms whose lofty limbs now rise in a series of fretted arches like the vaults of mighty cathedrals.



Over two hundred years old is that house, Questover by name. The owner moved in the elms and maples, but the glorious old patriarch pine aloofs them all. An unrelenting sentinel, and still a kindly, ever-friendly guardian.



What tree is more stately and beautiful than the noble American Elm?

Ulmus americana molini

The Moline Elm is a selected variety which reverses the usual form of the American Elm, and for that reason is less characteristic because it resembles in outline so many other trees of the same shape. It has a conical head with a central leader whereas the original Elm has many branches of equal importance which give the tree its distinct outline. The Moline Elm is much used for street-planting and places where a smaller and more compact tree is desired.

Ulmus americana, Vase-shaped

This is a selected form of the American Elm which emphasizes its magnificent broad or plummy top. At its best the outline resembles a slightly lopsided triangle stood on its sharpest point and is a characteristic feature of the American landscape. The Vase-shaped American Elm is one of the most beautiful trees in the world, and rapidly becomes a massive tree of the most dignified character. The large leaves and clean stem are especially notable in this selected form.

Ulmus montana

The Wych Elm or Scotch Elm has upward-reaching branches with a broad, round-topped head, characterized by its smooth trunk, lacking the numerous suckers and leafy branchlets which adorn the stems of the American Elm. It is also offered as *Ulmus glabra*, the generally accepted name. A useful and handsome tree which has been in cultivation for many years.

Ulmus pumila

A smallish tree when compared with the giant American Elm, the Siberian Elm seldom attains more than 70 to 80 feet. It is one of the most rapid-growing trees in cultivation, almost beating the Carolina poplar at its own game. Does remarkably well for street-planting and seems to thrive in barren positions both dry and hot in summer. In many places less desirable trees are being thrown out of city streets and replacements made with the Siberian Elm.

Why Trees Are Folks to Me



Trees are folks to me. Started to be folks when a boy, and Granddad used to call the old Willows down by the swimming-hole "Bill" and "Hank."

To him a Hickory was always "Old Hickory," which, you recall, is what they used to call President Jackson, hero of the Battle of New Orleans.

To me, Elms have for years meant Longfellow. As a lad had heard how the great New England poet had lived in the old Craigie house at Cambridge.

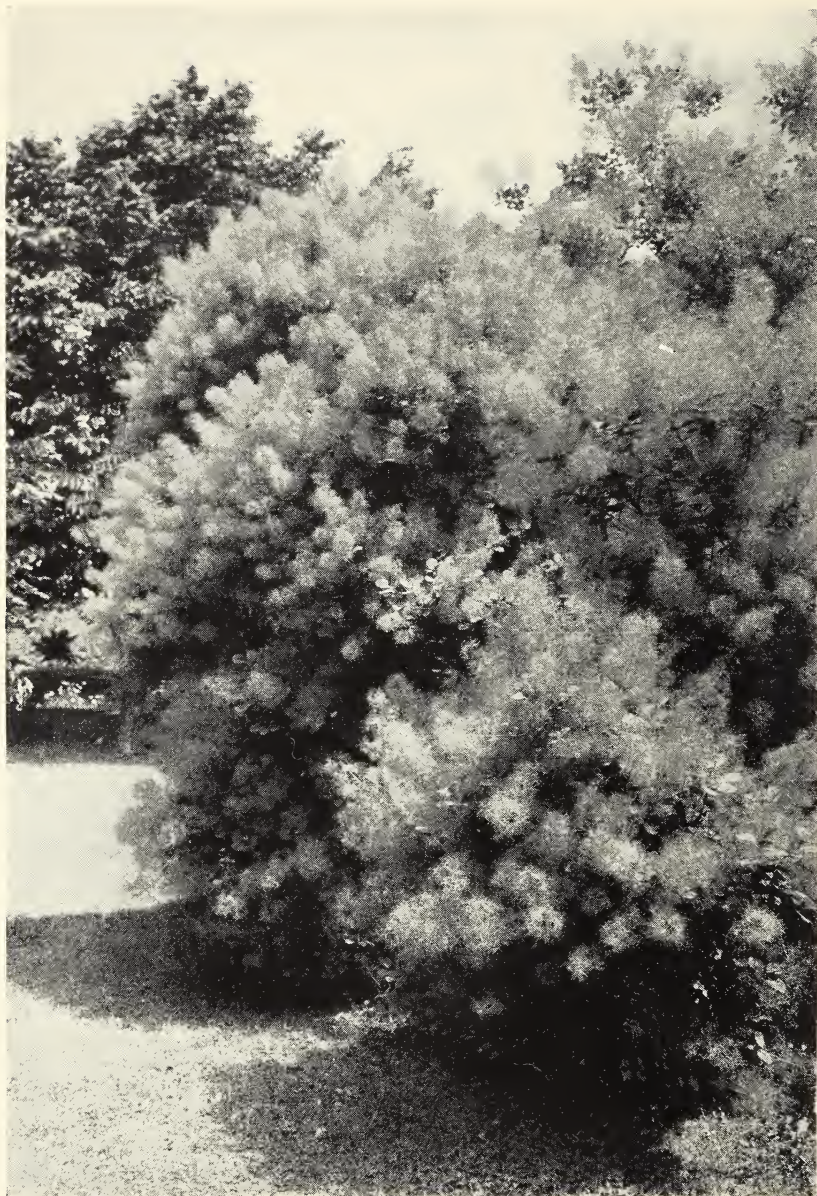
So, when about fifteen, I started off for Boston.

In front of Longfellow's, found several huge Elms which I must have stood

gazing at for longer than it seemed, as first thing I knew, a gentle, sweet voice from behind said: "Pardon me, but is there anything the matter with the trees?"

It was Longfellow's daughter, Alice. When I told her how I came to be there, she seemed greatly pleased and invited me inside and told me that her Father called the Elm trees "our perpetual benediction," because their lofty branches were always outstretched over them.

When, not so long ago, Miss Alice died, felt it a very personal loss. Hope she is buried beneath the stately, waving branches of some Elm. A perpetual benediction.



The Smoke Tree, *Rhus cotinus*, justifies its name—at distance it looks like a wisp of mist or fog



Deciduous Shrubs and Vines

ISN'T it so that the trouble with most of us nurserymen is that we get to taking too much for granted?

By which, I particularly mean that we grow our shrubs and vines quite as a matter of course and seldom stop to find out anything about them. Happily, a lot of us are waking up to the fact that most of our worthier shrubs have come from China. They may have come to us by way of Japan. But originally from China.

Not that there is anything particularly new in such a comment, but that it reminds us that the nursery business does have a lot more to it than just digging holes, planting out, and keeping our stock clean and healthy.

Ever noticed how the stock you get from a man who really is a lover of growing things generally is the finest? That, then, is another reason why, like the founders of this nursery fifty years ago, we make a study of everything we grow. You may not care a hoot where a shrub originally came from, but you do care whether it has been grown right.

So, if you don't mind, we are going to keep on trying to know all we can about everything we grow. You are bound to benefit by it in anything you buy from F. & F.

ACANTHOPANAX

Acanthopanax pentaphyllum

Sometimes called the Five-leaved Aralia, this shrub has a graceful, arching habit, grows 6 to 8 feet high, with bright green shining foliage of tropical appearance and inconspicuous greenish flowers. It is especially useful for covering rocky slopes.

ACER

THE LAWN and shade trees belonging to the Maple family will be found among the Deciduous Trees on page 70. We have brought the Japanese Maples into this section because they are normally shrubs, although in an especially favorable location they may occasionally attain the dignity of small trees.

Acer palmatum atropurpureum

Foliage of rich purple-red characterizes this Purple-leaved form of the Japanese Maple. With a tall, graceful habit and dense, coarsely cut foliage it makes a bold splash of color from early spring until late in the autumn. In good soil and partial shade, this Maple grows 6 to 8 feet high, and is one of the most exotic specimens which can be grown. Our plants have been grafted from a selected strain known to retain the even, rich wine-color throughout the summer.

Acer palmatum atropurpureum novum

The habit of this new Purple-leaved Japanese Maple is very much like the ordinary type. It makes the same shrubby plant 6 to 8 feet high, but because of rigid selection each plant is true to the bright purplish red color throughout the whole season. We have kept the original imported plants for propagation in order to insure no variation in the offspring. This is, we believe, the finest type of the Purple Japanese Maple in America.

Acer palmatum aureum

A particularly handsome Maple of similar habit to above, with brilliant golden yellow foliage which makes a stunning contrast with the purple varieties.

Acer palmatum crispum

This unique variety has rather small leaves, crisped at the edges in a most peculiar fashion, giving the plant a curious ruffled or incrustated appearance. It is an upright little tree, more erect than others of this type.

Acer palmatum dissectum

Distinguished by the deeply incised or cut foliage which is reduced almost to shreds, this shrub has a filmy, ethereal quality which is almost unreal.

Acer palmatum dissectum purpureum

This variety adds a bright purple tinge to the lacy foliage of the foregoing.

Acer palmatum nigrum

The Black Japanese Maple is really a very dark coppery purple variety with a glittering metallic hue extremely rich and ornamental.

Actinidia arguta**ACTINIDIA**

A climbing shrub with no common name, *Actinidia* will ascend 20 to 30 feet and is excellent for covering arbors, trellises, walls, or tree trunks. Its foliage is particularly handsome and free from insects and fungi. The white flowers are small, somewhat fragrant, followed by clusters of greenish fruits.

Æsculus parviflora**ÆSCULUS**

One of the handsomest shrubs in existence, the Dwarf Buckeye makes a massive mound of foliage and upward-turning branches 10 feet through and 5 or 6 feet high, with bold, five-parted foliage and erect spikes of filmy, thread-like flowers of the utmost decorative value. These 12-inch flower-spikes are held above the foliage and resemble great candles, creating an effect that is impossible to duplicate.



Specimen Japanese Maples have an unforgettable elegance of outline in addition to the charm of variable color

Akebia quinata**AKEBIA**

Known in Japan by the name Akebi, this dainty, beautiful vine will grow 15 to 20 feet high. The very curious purple flowers are produced abundantly in May and its foliage hangs on until late in the winter.

Alnus rugosa**ALNUS**

Probably this shrub is called the Smooth Alder because its Latin name means the Rough Alder. It is a big, coarse shrub 15 to 18 feet high, useful for waterside or swamp planting. The winter catkins are decorative, and in spring rapidly lengthen into fuzzy yellow tassels which attract bees from miles around.

AMPELOPSIS

AMPELOPSIS is one of those families on which the botanists have exercised their most devilish ingenuity in switching names around until nobody knows the name of anything. They are vines similar to wild grapes, with variations in foliage and fruit, and because of their extreme hardness and rapid growth have found favor for wall planting in the eastern states.

Ampelopsis aconitifolia

This quick-growing vine has foliage somewhat like that of the Monkshood (*Aconitum*), and bluish berries which become brilliant orange when fully ripe.

Ampelopsis heterophylla

By some this is called the Porcelain Ampelopsis. It is a vigorous climber, reaching 30 to 40 feet high, with showy, deeply cut leaves and brightly colored fruits which ripen through shades of lilac and pinkish green to bright blue.

Ampelopsis quinquefolia engelmanni

Engelmann's Virginia Creeper or Woodbine is a handsome, hardy climber 30 to 40 feet high, of vigorous growth and vivid fall coloring. By some this is assigned to the genus *Parthenocissus*.

Ampelopsis tricuspidata {veitchi}

The Boston Ivy is a well-known handsome vine, sometimes disguised under the name of Japanese Creeper or *Parthenocissus tricuspidata* or *Ampelopsis veitchi*. It is familiar to everyone, and will cover a vast expanse of vertical wall with a mat of beautiful overlapping foliage which in the autumn turns to a striking and harmonious blend of scarlet, orange, yellow, green, and gold.

Ampelopsis tricuspidata lowi

Heaven only knows why this is sometimes called the Geranium Creeper. It is no more like a geranium than an onion. Its small, slender vine is a reduced edition of the common Boston ivy, and much more delicate in every respect, except that the small leaves are crowded on the shoot and often curiously twisted, giving them the appearance of being thick. It is useful for low walls or posts which it is desired to cover, and we have seen it very beautifully climbing over a rough sun-dial. Its autumn coloring is exquisitely enamel-like.

AMYGDALUS nana. Flowering Almond. See **Prunus glandulosa**, page 138.

ARALIA pentaphylla. See **Acanthopanax**, page 106.

ARONIA

THE CHOKEBERRIES must not be confused with the choke cherries. They are medium-sized shrubs, with decorative foliage which turns bright red in autumn. The flowers and fruit are attractive while they last, which is not long. They are closely related to the mountain-ash, and like a moist situation toward the edge of the shrubbery.

Aronia arbutifolia

The bright red fruits of the Red Chokeberry last longer than those of other species. Its flowers are white, tinged with red, and the plant is very decorative. So profusely does it fruit that at a little distance the plant appears covered with red foliage. Because the form known as "brilliantissima" is a great improvement on the original type, we propagate from this exclusively.

Aronia melanocarpa

Somewhat lower growth and glittering black, shining fruits, which shrivel soon after August, distinguish the Black Chokeberry. The flowers and foliage are more attractive than those of the Red Chokeberry.

AZALEA

WE DISCUSSED Azaleas of the evergreen type on page 49. The deciduous Azaleas are generally hardier and less trouble to care for than those which hold their leaves all winter. They require the same acid soil conditions and plenty of sunlight in order to grow and bloom abundantly. The opportunities for using deciduous Azaleas are almost unlimited. Our native species grow over a wide range of terrain—some in swamps,

others on rocky ledges and the slopes and mountain hillsides. While the evergreen varieties are well adapted to formal effects and neatly kept gardens, the looser, more independent, graceful habit of the deciduous types shows to best advantage in naturalistic or formal plantings, intermixed with other friendly shrubs and perennials. Except for the acidity of the soil and a firm insistence upon a sufficient water-supply at the blooming season, Azaleas demand little or no special attention.

Azalea arborescens

The Tree Azalea sometimes grows 20 feet high, but more often contents itself with half that height. It ranges over the Appalachian Mountains from Pennsylvania southward, but is much hardier than that would indicate, and will grow in almost any part of eastern North America. The large blossoms are pure white, sometimes daintily tinged with pink, and have an exquisite fragrance. It is sometimes called the Smooth Azalea because of the lack of down or hairiness on its foliage so characteristic of many other varieties.

Azalea calendulacea

A highly variable and altogether charming shrub is our native Flame Azalea. It grows on mountain slopes of the southern Appalachians where the soil is at times conspicuously dry. The flaming color of the flowers is unequaled by any other spring-blooming plant. They run the gamut from light salmon to deep golden orange and scarlet, and usually appear before the foliage is fully developed, in the latter part of May and early June. Plants are of moderate growth but will occasionally reach 10 to 12 feet under the best conditions. Not fragrant.

Azalea kaempferi

This Chinese shrub was introduced by Prof. C. S. Sargent of the Arnold Arboretum in 1892. Because of the brilliance of its flowers, it is occasionally called the Torch Azalea. It makes an irregular, half-evergreen bush of straggling habit 3 to 5 feet high. Flowers vary from salmon-pink to bright orange-red, and are produced with such profusion that the plant is buried in the bloom. To prevent the bleaching of the flowers, light shade is beneficial.

Azalea kaempferi Hybrids

One of the most showy of all Azaleas is *Azalea kaempferi*. Because of its extreme hardiness and brilliance, it has been used as a parent, in combination with other less-hardy but larger-flowered species, to produce a new race of remarkable hybrids which preserve to a large extent the soft, delicate colors and fine texture of the tender Azaleas as well as the extreme hardiness and floriferousness of *Azalea kaempferi*. These beautiful hybrids are offered in mixed colors ranging through shades of lemon- and cream-yellow to vivid pink and orange, with all gradations of coral and salmon which intervene.

Azalea mollis

Usually the Chinese Azalea is seen only as a small plant. In sheltered positions it will grow 4 to 5 feet high and as much across. Its foliage is large and hairy, so that it is a pleasant bush even when out of bloom. The flowers are among the largest in the Rhododendron family, sometimes 4 to 5 inches across, and come in all shades of yellow, pink, and orange, varying through tones of terracotta, shrimp-pink, and salmon, of bewildering delicacy and beauty. To many the Chinese Azalea is the most beautiful of the whole tribe, but it must have a well-protected place if it is to grow happily and bloom abundantly. Its variation of color is probably due to the fact that the true *Azalea mollis* is hopelessly lost in a mixture of hybrids of *Azalea sinensis* x *Azalea japonica*. The plants which are known in the American trade by the name of *mollis* are really hybrids, two of which follow:

Azalea mollis, J. C. van Tol

A handsome bush of the *mollis* type with flowers of clear vivid red.

Azalea mollis, Louisa Hunnewell

Derived from a cross between *Azalea mollis* and *Azalea japonica*, this new variety is hardier than either parent and is more beautiful and floriferous. The huge clusters of brilliant, salmon-red flowers completely cover the plants while they are in bloom. It is easily one of the showiest decorative shrubs.

Azalea mucronulata

From the mountains of northern China and the stony ledges of Manchuria and Korea comes this upright, quick-growing, 6-foot shrub which, early in the spring, breaks into a mass of violet-rose flowers of exquisite texture, frilled like crêpe-paper, but sufficiently sturdy to withstand the unkind winds and frosts of March. Planted near a forsythia which blooms at the same time, the strong purple tone of its flowers makes an elegant contrast with the hearty yellow.

Azalea nudiflora

The mountains from Maryland to Maine are gay with pink and white blossoms of the Pinxterbloom in May and June. The Pinxterbloom is only a local name. Throughout the length and breadth of the mountain region this Azalea is called the Wild Honeysuckle in amiable defiance of thundering botanists and systematists who insist that plants should have only one name. We suspect that the millenium will be well advanced before *Azalea nudiflora* is called anything but Honeysuckle by people whose grandfathers and great-grandfathers and ancestors back to Captain John Smith knew it by that name. The bush sometimes gets 6 to 8 feet high, and the flowers are fragrant sometimes, and sometimes not; sometimes they are light pink striped with white, sometimes they are light pink striped with red. It is a very variable plant, and a very beautiful plant, and enjoys a dry, sloping position at the edge of a woodland where it receives full sunlight for at least a part of the day.



The sweetest and loveliest of native Azaleas, the dainty Pink Shell, *A. vaseyi* is always good associated with water

Azalea pontica

From the shores of the Black Sea and ancient Pontus comes the only Azalea indigenous to Europe. It has been grown in gardens for many, many years, and from it have been raised the gorgeous Ghent Azaleas which we used to see in the florists' shops at Easter. Botanists have discarded the historic name of *pontica* for this Azalea and it is now known as *Azalea lutea*. When well grown, it makes a broad, densely branched shrub sometimes as high as 12 feet, with sparse foliage and large, yellow, fragrant flowers borne in clusters at the tips of the branches before the leaves appear.

Azalea poukhanensis

Like *mucronulata*, *poukhanensis* comes from the mountains of Korea, and with us has proved to be very similar. It is a rather low, broad-spreading plant with finely scented, purple-lavender flowers produced abundantly in the spring before the leaves come out. The bluest-flowered of any Azalea we have seen.

Azalea poukhanensis yodogawa

This strangely named variety is a double form of *poukbanensis*. It grows 3 to 4 feet high and has double, lavender-pink flowers in May, usually following hard upon the single blooms of *poukbanensis*. We have been careful to propagate plants of free-flowering habit.

Azalea rosea

The Rose Azalea is generally considered to be a variation of *Azalea nudiflora*. It is somewhat dwarfer, although under best conditions it may reach 10 to 15 feet. The flowers are bright pink, occasionally striped darker, and have dark pink stamens. It is very fragrant, and has the curious quality of being able to thrive on soil which contains limestone, although, as a rule, it will be found that the roots are confined to the thin deposit of leaf-mold above the calcareous soil below.

Azalea schlippenbachi

From the Far East comes this handsome Azalea with the horrific name. The mountains of Korea and Manchuria turn pink in early spring with the thousands of blooms of this handsome Azalea. Its flowers are nearly 3 inches across, pale rose-pink, spotted with brown, and sweetly scented. The plant has proved to be perfectly hardy in North America and grows from 3 to 5 feet tall.

Azalea vaseyi

One of the earliest to bloom is the Pink-Shell Azalea, usually a small, irregular bush only a few feet high, but when grown under proper conditions makes a slender, narrow shrub 15 feet high or more. The flowers are clear, pure pink, in clusters of 5 to 8, before the leaves unfold. When in full bloom, a bush looks for all the world like an ephemeral cloud of fairy butterflies in the air. A native of the higher mountains of western North Carolina, it is very hardy and desirable for exposed positions and delights in a moist, half-shaded soil. Among the American natives the Pink-Shell is considered the most beautiful of all. The plants are rare and much sought after by those who appreciate its exquisite daintiness.

Azalea viscosa

The latest of the American Azaleas to bloom is the common Swamp Honey-suckle of the eastern states. Its sticky, white flowers, sometimes tinged with pink, just load the air with their delicate fragrance in late June and July. The plants grow in wet, mucky soil and swamps throughout the eastern states from Maine to Carolina.

Benzoin aestivale

BENZOIN

The Spice Bush is a common native of our eastern states along stream-sides and on rocky slopes, making slender, straggly growth 10 to 12 feet high, producing fringy yellow flowers first thing in April, and in summer glittering with scarlet berries. A fine native for naturalizing. The leaves and twigs are aromatic.

BERBERIS

THE BARBERRIES are spiny shrubs distinguished by their graceful habit and valued for their attractive autumn coloring and beautiful fruits. Their flowers are charming but relatively inconspicuous in most species. They grow freely in almost any location, although they flourish best in a deep, fertile soil. Some of them endure considerable shade, but the flowers and fruit are apt to be shy when there is a lack of sunlight.

For Evergreen Barberries, see page 51

Berberis aggregata pratti

Pratt's Salmon Barberry is a 10-foot shrub, with long, vicious spines, smallish leaves, pale yellow flowers, and bright salmon-red berries borne in tassel-like panicles of great ornamental value.

Berberis gilgiana

A long-leaved shrub nearly 6 feet high, with bright yellow flowers, followed by glowing dark red berries in clusters.

Berberis macracantha

This vigorous shrub, called by some the Big-thorned Barberry, is presumed to be a hybrid. Under good cultivation it will grow 10 feet high, but usually it is less than half that size. It has wedge-shaped leaves and curious flat thorns. Flowers are yellow and the fruits red.

Berberis thunbergi

It seems impossible that the millions of Japanese Barberry now growing in the United States could have been grown here since 1890. Next to the common privet, this Barberry is used more than any other shrub for hedges. In its early years it makes a low, graceful, fountain-like shrub, and, if left unpruned, is one of the most beautiful hedge plants. Under favorable conditions it will grow 5 to 7 feet high and as much through, and with repeated pruning will make a dense, impenetrable hedge. Its autumn color is very beautiful, its berries are brilliantly attractive, and since birds will eat them only as a last resource, they frequently hang on until spring.

Berberis thunbergi atropurpurea

This astonishingly popular shrub is the same as the ordinary Barberry except that the foliage is bright red in the spring, dull red in summer, and blazing scarlet in autumn. Because of the ruddiness of the plant, the glittering beauty of its berries is less effective than the ordinary type. To develop the best color, it should be grown in full sunlight.

Berberis thunbergii minor

The Box Barberry has been used considerably as a substitute for boxwood. It is a compact little plant which can be kept a few inches high for many years. At its best, however, it is only a cheap substitute for Boxwood, and should not be relied on for permanent beauty.

Berberis verna

This is what Wilson says of this splendid shrub: "A green fountain some 6 feet high, and twice that through, this has long, slender, bright red branches covered with small leaves. In June the stems are strung with slender, short racemes of deep yellow flowers, and in the autumn with almost translucent salmon-colored round fruits, the wealth of which weigh down the branches. Of the many Barberies it has been my good fortune to discover, *Berberis verna* is my favorite among those which lose their leaves in the fall, and of the hundred different kinds grown in the Arnold Arboretum, not one has such a graceful habit."

BIGNONIA**Bignonia radicans**

Known far and wide over the northern part of the country, the gorgeous old Trumpet Vine has established a place for itself in the affections of every man and woman who was reared in the country. Great old bushes abound in farmyards with widespread, arching branches covered with tropical-looking foliage and adorned from midsummer on with gorgeous scarlet trumpet-shaped flowers of heavy, leathery texture. If planted against a building or a tree, it readily converts itself into a vine, and will climb like Jack's Beanstalk to the top of any support, no matter how high. This is one of the most handsome old-fashioned plants, and belongs in any garden where any attempt is made to approach the character of traditional early American planting.

CALLICARPA**Callicarpa purpurea**

This attractive shrub is sometimes called the Chinese Beauty-Berry. It grows 3 to 4 feet high, is rather bushy, and produces an abundance of small, pale pink flowers in August, followed by innumerable glittering lavender-blue berries in dense clusters along the branches. The plant is hardy in most northern districts. Although it may occasionally be killed to the ground in severe winters, the vigorous new growth from the root soon repairs the damage, and, in most cases, the plant will flower and bear fruit the same season.

CALYCANTHUS**Calycanthus floridus**

Few shrubs are so well known as the Carolina Allspice. In fact, over a large part of the United States it is called "Shrub" or "Shrub Bush" without any other qualification. In some places it is referred to as the "Sweet-scented Shrub," the "Sweet Shrub," or the "Strawberry Shrub." The handsome, dark

red-brown flowers are produced in early spring. They are deliciously fragrant, especially when wilted, and school-boys frequently fill their pockets with them, carrying them about until they are shriveled husks. The curious, large pods which follow are full of smooth, brown seeds, like coffee beans, which are elusively aromatic when rubbed in the hands and often used as counters in children's games. During the summer, the plant is neat and very handsome, with glossy, corrugated foliage. It grows 4 to 5 feet high, and in time will spread over an area equally broad.

Caryopteris incana CARYOPTERIS

The Blue Spirea has been given the nice, bookish, made-up name of Blue-beard, but nobody uses it. Of course, the plant is not a spirea and it is not blue, but Blue Spirea is no worse than May apple, which denotes a fruit that is not an apple and is not produced in May. The Blue Spirea is a bushy plant from 2 to 4 feet high, with excellent foliage, and which covers itself with fuzzy gray-lavender or grayish violet flowers in September and October. It should be given a sheltered situation because of a slight tenderness, but even if the plant freezes to the ground, it will renew itself and bloom again in one season. This very fine, handsome shrub is especially valuable for its late flowering period and interesting color. Its dwarf and compact habit recommend it for most plantings in front of larger shrubs or nestled against the foot of a wall.

Celastrus orbiculatus CELASTRUS

Everybody knows and likes Bittersweet. This Oriental variety is more vigorous than the native vine and produces an abundance of brilliant orange and scarlet fruits in small clusters in the axils of the leaves. In consequence, it is not very showy until after the foliage is fallen, but it is the best variety for winter decoration because of its compact clusters and long, garland-like branches.

Celastrus scandens

The native Bittersweet is one of the handsomest and most desirable vines in cultivation. In late summer and early autumn the large clusters of brilliant red and yellow berries are gathered by the millions from the forests and roadsides. The long, terminal panicles of fruit are held well above the foliage so that it attracts attention even before the leaves drop. But they are more difficult to arrange when cut for drying than the long, garland-like branches of the Oriental variety.

CEPHALANTHUS

Cephalanthus occidentalis

The Button Bush gets its name from its round, ball-like clusters of creamy white flowers, produced in abundance from July to September. The plant is a native of swampy ground and likes plenty of moisture in the garden. Its foliage is large and showy, and the plant will grow 20 feet high under good conditions, but is easy to keep below half that height.

CLEMATIS**Clematis montana**

Like all climbing members of this family, *Clematis montana* uses its leaf-stalks to fasten itself to its support. Although slender and graceful in habit, the plant grows vigorously 15 to 20 feet high and blooms profusely in May. The four-petaled flowers are blush-white, starred with a golden center, and remain in beautiful condition a long time. It is one of the prettiest hardy vines.

Clematis paniculata

This useful, vigorous vine is known to some as the "Sweet Autumn Clematis." It will grow 20 to 30 feet high with unusual rapidity, climbing by means of its twisted leaf-stalks. The fragrant white flowers are an inch across and are produced in reckless abundance in September. Later, its feathery seed-pods create the illusion of a second blooming period.

CLETHRA

Clethra alnifolia

The Pepper Bush or Summer Sweet sends up many slender stems 4 to 5 feet high, each bearing erect, finger-like clusters of small, deliciously scented, white flowers. To many the odor is reminiscent of black pepper, and in passing through a woods where the Pepper Bush grows, the peppery scent is distinctly evident. This is a very fine American shrub, especially for low, moist places or damp woodlands. It also grows well in full sun, but the plants are likely to be dwarfer and the flowers less abundant.

COLUTEA

Colutea arborescens

This is a big, handsome shrub 15 feet or more high, with characteristic, compound leaves like those of a locust tree, and small, bright yellow flowers resembling those of a pea-blossom, in clusters along the twigs. Its interesting, large, inflated seed-pods give it the common name of Bladder Senna.

CORNUS

THE SHRUBBY DOGWOODS have little resemblance to the glorious beauty of the pink and white-flowering Dogwood, *Cornus florida*, and its cousin, *Cornus kousa*, which are offered in this book in the Deciduous Tree Section. They are used largely as fillers in shrub borders where their interesting branching habit and their colorful twigs and berries make bright spots of color in the autumn and winter. But one cannot depend upon Dogwood berries for a continued display, because the fruits

are so attractive to birds that they are soon gobbled up in the autumn migrations. Dogwoods thrive in any kind of soil, but prefer plenty of moisture, and are grateful for a shady background.

Cornus alba sibirica

The Coral Dogwood was brought from northern China and Siberia many years ago, and has won a place among the most desirable shrubs for large borders and natural plantings. It will reach 10 feet or more under good conditions, making a broad, bushy plant with brilliant coral-red bark which is very showy in the winter. The bluish white berries are very pretty, but they soon fall or are devoured by birds. Because it used to be the practice to wash mangy dogs in a decoction made from the bark and crushed twigs of this shrub, it is the original, genuine Dogwood from which all its relatives derive their name.

Cornus alternifolia

A native of the eastern states, this handsome shrub sometimes grows into a small tree. Its flat, spreading tiers of branches are very characteristic, giving the plant a fine decorative value. The flowers are of no importance and the fruit is bluish black. Has a very definite place in landscape design.



"Discouraging," you say. Yes, that's so. Those elms are no yearlings. But somebody planted them in their youth. And they did it with an idea in mind of the characterfulness of the trees when leafless. George Washington's adopted daughter, Nellie Custis, spent her last years here at Audley, which is near Berryville, Virginia.

Cornus amomum

The Silky Dogwood grows naturally all over the eastern part of North America. It has purplish branches and attains a height of 3 to 10 feet. The large foliage is silky underneath and the blue fruit is very attractive.

Cornus florida

The White Dogwood is offered among Deciduous Trees, page 77.

Cornus kousa

This species is offered among Deciduous Trees, page 78.

Cornus mas

Sometimes the Cornelian Cherry grows big enough to be called a small tree, but its dense, twiggy growth and glossy foliage have a distinctly shrubby aspect. Its flowers are yellow and appear before the leaves in the spring. The cherry-like scarlet fruit is very pretty in the autumn, and is often gathered for making a toothsome preserve.

Cornus paniculata

The Gray Dogwood is frequently called *Cornus racemosa*. It is a moisture-loving shrub 10 to 12 feet high, adorned in spring with clusters of whitish flowers followed in autumn by pretty white berries on short red stems. For best effect this native shrub should be planted in dense masses.

Cornus stolonifera

The Red Osier is usually a low shrub, although it will get 7 to 8 feet high. It is valued entirely for the bright red twigs which contrast remarkably with the bare, dull-colored branches of other shrubs during the winter.

Cornus stolonifera lutea

A dwarfer variety is the Golden Osier and its bright yellow twigs have high decorative value in winter, especially if planted near the Red Osier.

COTONEASTER

THE LARGE FAMILY of Cotoneasters has many members of high value for landscape planting, including several evergreen varieties described among the Evergreen Shrubs in this book. In common with other members of the Rose family, Cotoneasters grown in an open situation generally prove to be hardy throughout northern United States. They vary tremendously in habit and in attractiveness, and rely upon their brilliantly colored fruit, more than floral beauty, for decorative effect.

Cotoneaster acutifolia

The Peking *Cotoneaster* is a good hedge-plant. It has slender, spreading branches with sharply pointed foliage, inconspicuous flowers, and glossy black fruits. The plants are very hardy and will grow 8 to 10 feet high.

Cotoneaster dielsiana

This pretty shrub grows 6 to 8 feet high and has a most interesting arching habit. The small, glittering foliage is very attractive, while the pinkish flowers and bright red fruits add to its beauty. Sometimes known as *Cotoneaster applanata*.

Cotoneaster divaricata

This broadly spreading shrub, 6 feet or more high, has tiny leaves spread along two sides of each twig. In early summer each branchlet is studded with small pink flowers which have a quaint, old-fashioned appearance. In the autumn the brilliant scarlet fruits are very showy and hang on a long time.

Cotoneaster foveolata

A big, irregular bush 10 feet high or more, with wide-spreading branches and long, willow-like foliage. The pinkish flowers are followed by round, glittering black berries. In autumn the leaves turn brilliant scarlet and orange.

Cotoneaster hupehensis

This handsome, shiny, Chinese shrub is one of the few *Cotoneasters* which is showy when in flower. It has a broadly spreading habit, 5 feet high, with white flowers in clusters along the slender twigs, forming fountain-like masses of white in early summer. In the autumn the arching branches are strewn with brilliant crimson fruits. Ernest H. Wilson says, "Combining the qualities of abundant blossoms and wealth of brilliant fruits, I count *Cotoneaster* [*racemiflora*] *soongarica* and *Cotoneaster bupehensis* two of the most valuable shrubs it has been my privilege to add to northern gardens."

Cotoneaster racemiflora soongarica

Even if only for the unique coral color of the berries, this rare shrub should be included in any planting of berried shrubs. The slender, spreading branches are literally loaded with striking fruits about the size of a large pea, which contrast vividly with the gray-green leaves. At maturity this variety is about 6 feet tall and half again as broad.

For Evergreen *Cotoneasters*, see page 55

CYDONIA

CUSTOM still clings to this name for the Flowering Quince, although botanists have decided that only the common Quince is entitled to it. They have segregated the Flowering Quinces into the genus *Chænomeles*, but gardeners and plantsmen

up to now have resisted that tongue-twister. Flowering Quinces are handsome, cranky-looking shrubs with twisted, irregular branches armed with spines and adorned with gorgeously colored flowers in early spring. They may be allowed to grow into specimen plants and trimmed into hedges.

Cydonia japonica

Growing to be a 6- or 8-foot shrub, the Common Japanese Quince is probably the showiest of its tribe. In early spring its brilliant scarlet or orange-scarlet flowers appear in clusters all over the plant, making it easily one of the most dazzling sights imaginable. The fruits are spicily fragrant but are not very palatable.

Cydonia japonica alpina

This is a prostrate form which crawls along the ground and clambers over stones and banks. Superbly showy for large rock-gardens.

Cydonia japonica pygmaea

A dwarf variety seldom more than 3 feet high, with twisted branches that are intricately woven to make a dense bush. Although the salmon-pink flowers are not freely produced, they are rather surprising when they are seen.

Cydonia maulei

This low, spiny shrub grows very dense and covers itself with a solid mass of vivid orange-red flowers in April. Trained on a wall, there are few shrubs that will make such a striking effect.

Cydonia maulei superba

A variety with even darker flowers than the species, but similar in habit.

DEUTZIA

ALL DEUTZIAS are showy, flowering shrubs of very bushy habit, useful for either border planting or as individual specimens in the open lawn. They have many stems rising directly from the root, arching upward and outward, thickly crowded with coarse, round foliage which completely disappears in May under the abundance of frilled, bell-like flowers. While the blossoms are a little too small to attract casual attention, they are worthy of close study. At first glance they look like tiny, white narcissus, the trumpet is formed by the flattened filaments of the stamens, so broad that they unite in a tube or cup. The

general color effect of all *Deutzias* is white, although there are varieties which have pinkish lines and rose-colored tints on the buds. They are hardy throughout most of the country, but are better if given a slightly sheltered situation.

Deutzia gracilis

Seldom more than 2 to 3 feet high, this is one of the prettiest and the most graceful of all the *Deutzias*. The plant makes a fountain-like little bush which is attractive at all times of the year, and in May is covered with an astonishing profusion of delicate snowy white flowers.

Deutzia lemoinei

Lemoine's *Deutzia* is a hybrid, probably a form of *Deutzia gracilis*. It is even more floriferous, the flowers packed into short, clubby sprays, and displaying a creamy or slightly yellowish tint distinct from all other varieties.



Man so often denudes. Then Nature comes silently in and hastens to reclaim her own with a softening, shielding growth of trees and vines. This otherwise depressing old ruin is a thing of beauty. Isn't there a hint in it for us in the greater use of vines, likewise the less studied-looking planting of trees? There is much art in the thought-out casual.

Deutzia magnifica

A tall shrub 6 to 8 feet high, less graceful than many others, but exceedingly profuse in bloom, and the flowers are larger than those of *gracilis*. Probably the showiest of the snowy white varieties.

Deutzia parviflora

The Mongolian *Deutzia* is a large 6-foot shrub with hairy foliage and rather small white flowers in flat clusters.

Deutzia scabra crenata

One of the prettiest *Deutzias*, of a stiff, erect habit, sometimes growing as much as 8 feet high. It is very floriferous. The flowers have a fringy appearance, and are frequently slightly tinted with blush or pink.

Deutzia scabra, Pride of Rochester

The best-known and most popular of all *Deutzias*, and probably the strongest growing of the lot. It makes a tall, broad-topped bush 9 to 10 feet high, covered with a cloud of fringy pink and white blossoms in May.

Diervilla trifida

DIERVILLA

Commonly called the Dwarf Bush-Honeysuckle; some botanists call it *Diervilla lonicera*. It is a native shrub, 3 feet high, with small yellow flowers in groups of three. The plants grow well in the shade, and they are useful as midsummer blooming subjects. Has rather striking autumn coloring.

For other *Diervillas*, see *Weigela*

Dirca palustris

DIRCA

The common native shrub which is variously called "Leatherwood," "Moosewood," and "Wycopy," makes an attractive, slow-growing specimen plant when given plenty of room. It has tough, flexible branches much used by the Indians and early settlers as withes and barrel-hoops. The attractive little yellow flowers are produced in spring before the leaves appear.

ELÆAGNUS

RUSSIAN OLIVES, or Oleasters, are exceedingly ornamental in foliage and fruit. They thrive in hot, sunny situations, and are ruggedly hardy and indifferent to neglect.

Elaeagnus angustifolia

The Common Oleaster is 15 to 18 feet high when well grown. It has gray leaves of stiff, metallic texture, covered with a silvery dust. The orange berries are coated with silvery scales and are very showy in autumn.

Elaeagnus longipes

The Chinese call this shrub *Gumi*. It is 6 feet high, with reddish brown stems, large, rough foliage, and inconspicuous yellowish flowers. The long-stemmed fruits are bright red and may be eaten raw, or in form of jams and jellies.

Elaeagnus umbellata

This Oleaster is a spreading shrub 12 feet high, with silvery foliage and fragrant yellowish flowers. The small fruits are brilliant red, sometimes covered with silvery scales.

EUONYMUS

SEVERAL members of this family were described among Evergreen Shrubs. The deciduous varieties are quite different and depend upon their brilliantly colored foliage in autumn and their attractive fruits for decorative value.

Euonymus alatus

A curious, irregular, bushy shrub with large, thin-textured leaves which turn to deep, warm crimson in autumn. Its bark is corky and spreads out in flat wings of most interesting character. The plant seems to be indifferent to soil-situations and neglect, and is very useful for masses in landscape planting.

Euonymus europaeus

The Burning Bush is a tall, slender shrub of tree-like habit. Its foliage turns bright red in autumn, and after it has fallen, the long-stemmed, bright pink fruits hang like tiny Christmas tree ornaments all over the plant. As winter advances, they break open in the manner of bitter-sweet and display bright scarlet seeds within.

EXOCHORDA

Exochorda grandiflora

A flowering shrub of bushy habit, the Pearl Bush sometimes assumes the stature of a small tree 9 to 10 feet high. The glistening white flowers are frequently 2 inches across, and are borne in fairly large clusters. When in full bloom, the plant is a handsome object, especially in moist places where it may be difficult to get other flowering shrubs to grow.

FORSYTHIA

THE NAME Golden Bell has been attached to this family of handsome shrubs, but nobody uses it, and, in consequence, the name of William Forsyth, one of the great gardeners in history, is perpetuated in common speech through the Forsy-



Gayest of shrubs, the Forsythia is the epitome of spring

thias, which have become one of the most popular groups of shrubs grown in gardens. They are all very much alike in general appearance and do well in almost any situation. But to enjoy Forsythias at their best, they should be given a place where they can grow untrammelled by restricted space and without pruning. There is nothing so miserable to look at as a Forsythia which has been clipped into some formal shape, or a line of them compelled to serve as a hedge; and there is nothing more beautiful and more expressive of springtime than the early grace of a Forsythia allowed to develop naturally according to its own sweet will.

Forsythia intermedia

The Hybrid Forsythia, which is the type of the best forms now grown in gardens, makes a big 8-foot shrub of fountain-like habit with every twig densely clothed with nodding, four-petaled, bright yellow flowers in the latter part of March or early April.

Forsythia intermedia spectabilis

This is the showiest of all Forsythias, as its name indicates. It is a selected form of *intermedia* with an especially dense-flowering habit, and several shades darker yellow than any variety, surpassing all in profusion of bloom and vigorous growth.

Forsythia suspensa

This is the most rampant, rambling, straggly variety of all, and should not be planted anywhere unless there is plenty of room to allow it to mount a wall or trellis, or scramble over a bank or rock-pile. It has been trained up as high as the second story of houses and over pergolas, but it looks much better if it is allowed to ramble at will over a neglected or unused part of the garden. The flowers are bright yellow, rather sparsely produced in comparison with *spectabilis*, and it is the best variety for natural plantings.

Forsythia viridissima

This is the one Forsythia which has little to commend it beyond its late season of bloom. *Intermedia* is a better grower, and *spectabilis* has flowers of the same color. *Viridissima* is a passé variety which should be discarded from gardens and nurseries.

Genista pilosa

GENISTA

An ornamental, half-trailing shrub a foot or two high, with dark green foliage and brilliant yellow flowers like small pea-blossoms. Excellent for dry, sandy banks or rocky slopes sheltered from cold winds in winter.

HAMAMELIS

WITCH-HAZELS are coarse shrubs or small trees of no particular beauty, but rather curious because of their strange flowering season and curious seed-pods which require a full year to ripen and usually discharge their seeds among the opening flowers of the following season. The bark of the Witch-Hazel has been used for medicinal and toilet purposes, although its value is doubtful. The name, strangely enough, has nothing to do with witchcraft, but is an ancient Anglo-Saxon word which formerly meant a "weak" or "limber" tree. Witch-Hazels are useful for large borders, especially in moist places.

Hamamelis japonica

The Japanese Witch-Hazel is a tough tree or large shrub 20 feet high, with coarse foliage which turns yellow in autumn. Its fringe-like, canary-yellow flowers are stained with purple in the center and are produced in March.

Hamamelis mollis

The Chinese Witch-Hazel is easily the choicest member of the family. Its large flowers are made up of four broad ribbons of deep golden yellow, held by a cup of reddish purple calyx. These cheerful flowers are borne in good-sized clusters on the ends of the stubby little branchlets, and during a warm February

it is impossible to imagine a more glorious surprise than one of these bushes draped with spun gold. And what splendid strong foliage it has! The large, roundish leaves are strongly veined and have a woolly white covering underneath. In winter the intricate branching system continues to hold your interest, and, glory be!—it doesn't seem to mind civilized town-life at all. A real practical shrub for a specimen near your door or great masses.

Hamamelis vernalis fragrans

An interesting shrub of spreading habit, 6 feet high or more, with smallish leaves and pale yellow, fragrant flowers. Although the individual flowers are smaller, there are many more of them than in other kinds, and it is not unusual to find this shrub aglow with blossoms some warm January morning. If the temperature drops, why the petals just roll up and wait for another warm day when they are as cheerful as ever.

Hamamelis vernalis rubra

A similar variety with brownish red and yellow flowers, slightly fragrant.

Hamamelis virginiana

The Common Witch-Hazel is a shrub or small tree nearly 20 feet high. It is a native of eastern North America, and produces its fringy yellow flowers in late autumn, usually in November.

HIBISCUS

Hibiscus syriacus

The Althea, or Rose of Sharon, is an erect shrub 10 to 12 feet high, with a broad head and rather formal appearance. The large, showy flowers are produced in August at a time when few other shrubs are in bloom. Altheas are largely used for landscape masses and screens. They are drought-resistant, hardy, and generally all-round, serviceable shrubs. We offer four varieties, Red, White, Purple, and Pink.

HYDRANGEA

ONE OF the most popular shrubs in America is the Peegee Hydrangea. Because of its excessive popularity, other beautiful, hardy members of the family have been overlooked, and subjected to undeserved neglect. Hydrangeas are woody shrubs or vines of noble proportions which bloom in late summer, producing showy white flowers which sometimes change to pink. They do well in most situations, and seem to be indifferent to soil and climate.

Hydrangea arborescens grandiflora

Popularly known as "Hills of Snow" for many years, this shade-loving Hydrangea makes a wiry bush from 3 to 5 feet high, with large foliage and enormous heads of pure white flowers in July and August. It succeeds best when severely pruned every spring and kept to a moderate height.

Hydrangea paniculata grandiflora

The common Peegee Hydrangea is so thoroughly well known that it needs no description. We have excellent tree-shaped plants trained 4 to 5 feet high, as well as the bush form.

Hydrangea petiolaris

A superb vine for stone or stucco walls, up which it will climb by means of its aerial roots, is the Climbing Hydrangea. The broad, handsome foliage overlaps like shingles on a roof, and the wide-spreading, lacy panicles of flowers are extraordinarily handsome and delightfully fragrant, in early summer. Often confused with this gorgeous vine is *Schizophragma hydrangeoides*, which can be identified by the solitary sepal of the flowers and the rougher, splitting bark on the old stems, which on the Climbing Hydrangea is a thin, flaky brown. Succeeds splendidly on the north side of a building.

Hydrangea quercifolia

The Oakleaf Hydrangea is a rather uncommon bush. It has coarse leaves, indented and somewhat ruffled, resembling in a magnified way the foliage of some gigantic oak. The flowers are not a great deal unlike those of *Hydrangea paniculata*, and are borne in enormous, conical heads which are very majestic and showy. Particularly valuable for the brilliant autumn coloring.

HYPERICUM

ST. JOHN'S-WORTS are attractive little shrubs of rather variable habit, useful in sunny situations. They adorn their location most satisfactorily with good foliage and showy, brilliant yellow flowers, distinguished from almost all other blooms by the enormous mass of silky stamens in the center.

Hypericum aureum

A 3-foot shrub native to the southeastern part of the United States, but perfectly hardy in New England. The foliage is attractive, and the large, brilliant yellow flowers are very showy. It likes rocky ground and will endure more shade than most varieties.

Hypericum bucklei

This pretty little shrublet is less than 1 foot high, with bluish leaves which turn scarlet in autumn. The inch-wide flowers have narrow petals and an immense tuft of golden stamens. A splendid little rock-plant.



Wouldn't you say this was an object lesson in effectiveness of restrained planting? The characterful old poplar was there. A discriminating hand softened the foreground just enough with the shrubbery. The ivy on the pre-Revolutionary brick house relates it to the rest. And so the picture is "tied-in," to use an artist phrase. Why is it, do you suppose, that more planting isn't considered from the point of composition—a making of a series of pictures?

Hypericum densiflorum

A well-shaped, 6-foot shrub with small, bright yellow flowers in broad, dense heads, produced abundantly from July until September.

ILEX

Ilex verticillata

The Winterberry or Black Alder is one of the best hardy shrubs which carries its fruit through the winter. In the mountains of Pennsylvania it is sometimes called the "Fire Bush" because of its brilliant red berries, showy all winter long. It is a deciduous member of the Holly family and makes a spreading bush 6 to 8 feet high, frequently found in shady and half-moist places, and enjoys a similar situation in the garden. It is advisable to plant in groups, thereby bringing into close proximity the pistillate and staminate forms and insuring a bountiful display of berries.

For Evergreen Hollies, see Broad-Leaved Evergreen Section, page 58

INDIGOFERA

THESE shrubs are closely related to the perennial plant which at one time was so widely cultivated in the southern states for the production of indigo. They belong to the Pea family, and have characteristic pea-blossoms and foliage similar to that of the locust tree. The shrubs we offer are hardy and willing to grow in very hot, dry situations. They are not very showy when in bloom, but give a pleasing suggestion of color over a long season, and the foliage is excellent.

Indigofera amblyantha

A handsome, 6-foot shrub with attractive, airy, bright green foliage and an abundance of small pink flowers in dense clusters from July until October.

Indigofera kirilowi

This handsome shrub is something like the rose acacia, *Robinia pseudoacacia*. Its large, rose-colored flowers are borne in long sprays. Plant is bushy and grows about 4 feet high.

Indigofera potanini

This very vigorous, spreading shrub will reach 5 feet in height. The flowers are small, in finger-like clusters, and rejoice in a curious shade of lilac-pink.

JASMINUM

Jasminum nudiflorum

The winter-flowering Jasmine is a sprawling, wiry shrub much like a vine. It will spread over the ground with incredible rapidity, rooting wherever the branches touch. The small, dark green foliage is very attractive, and it is an excellent subject for trailing up against a south wall. It is not unusual for it to break into bloom on warm days in January and February. The flowers are bright yellow, star-shaped, and not fragrant. A large mass of it in bloom resembles a forsythia in a general way.

KERRIA

Kerria japonica

The single golden yellow flowers of this slender, erect shrub used to adorn almost every cottage garden where they were called "Japanese Roses" or "Cochorus," and continued in flower from June until September. The single Kerria is fairly rare nowadays, its place being taken by the double form, but it is a very beautiful and graceful plant. Even though it may be frozen during severe weather, it comes up in the spring as a much broader clump.

Kerria japonica argenteo-variegata

The Variegated Kerria, in addition to its attractive flowers and beautiful stems, has foliage edged with silvery white, but the plant is not vigorous.

Kerria japonica flore-pleno

Double Kerria is often called the Globe Flower, because the innumerable clustered petals give the blooms a chrysanthemum- or ball-like shape. The plant is similar to the single Kerria, but more vigorous, 4 to 5 feet high, with many bright green stems which are attractive at all seasons, and particularly in the winter when green is a rare color in the landscape. This double-flowering form is more hardy, and the warm yellow coloring is also an improvement.

KOLKWITZIA**Kolkwitzia amabilis**

One of the most recent and desirable introductions to the shrub world is the Beauty Bush, brought from Asia by the late E. H. Wilson. The plant is a slender but erect shrub of bushy habit, with downward sweeping branches of very graceful aspect. Its flowers are like tiny foxgloves, bright shell-pink in effect, and produced in bewildering profusion. It is closely related to the weigelas, but possesses a greater degree of beauty and refinement. It is very hardy.



A city garden planted effectively with vines and trees, shrubs and perennials. The garage is brought into harmony with the scene by the pergola and pool beside it. Note the broad, open lawn.

LESPEDEZA

Lespedeza formosa

A showy, handsome bush of the Clover family with slender, half-trailing branches covered in late summer with a gorgeous abundance of brilliant reddish purple flowers shaped like pea-blossoms. This Bush Clover is not entirely hardy and is likely to freeze to the ground during severe winters, but it readily renews itself and makes a handsome, wide-spreading, sprawling plant over 4 feet high and 6 to 8 feet through the same season. It is particularly handsome at the top of a wall when allowed to fall into its naturally graceful attitude.

LIGUSTRUM

THE PRIVET family is so well known as to need little or no description. Probably no plants are more widely grown throughout America for hedges and topiary work.

Ligustrum amurense

Amur Privet grows upright and looks a good bit like the California Privet, but it is hardier and much more vigorous. It is nearly evergreen, and the best variety for planting in severe climates. The ill-smelling white flowers, resembling a small lilac truss, are followed by decorative black berries.

Ligustrum ibota regelianum

The true Regel Privet according to botanists is really *Ligustrum obtusifolium regelianum*, but the name *ibota* has been in commerce so long that we retain it. Regel's Privet is a dense shrub, 5 to 6 feet high, of spreading, branching habit. It makes an unusually fine, thick hedge, almost evergreen.

Ligustrum ovalifolium

California Privet has been the standard hedge-plant of America for many years. Its beautiful glossy foliage is almost evergreen, and the plant withstands any amount of shearing. It is less hardy than the Regel or Amur Privet.

LONICERA

THE HONEYSUCKLE family includes many shrubs and a few vines of the highest decorative value for garden use. There are nearly 200 species scattered throughout the northern hemisphere as far south as northern Africa, Java, and the Philippine Islands; many of the best came from China. They vary widely in habit, but all of them succeed in any good garden soil and are attractive for fragrance, flowers, fruit, and foliage.

Lonicera belgica

A variety of *Lonicera periclymenum*.

Lonicera browni punicea

A close relative of the Trumpet Honeysuckle, with brilliant orange-red flowers. It is a vigorous vine with large, almost evergreen foliage.

Lonicera fragrantissima

This is a delightful shrub because of the delicious scent of its tiny waxen flowers which are produced early in spring before the leaves are unfolded. The bushes grow quickly and make a fine mass of decorative foliage which remains a good rich green, persisting until midwinter. In late summer the plants are studded all over with glittering red berries.

Lonicera halliana

A variety of *Lonicera japonica*.

Lonicera heckrottii

This very floriferous and handsome Honeysuckle is a twisty, twining shrub which eventually grows 15 to 20 feet high. The flowers are produced in clusters and appear over a very long season. They are a curious shade of rosy purple on the outside and dull old-gold within. Very attractive.

Lonicera henryi

A half-evergreen, twining shrub which is more or less of a vine. It came from China about twenty years ago. The flowers are reddish yellow, varying to purple, and are followed by shiny black berries. Almost evergreen.

Lonicera japonica halliana

Hall's Honeysuckle is a familiar vine frequently used as a ground-cover or hedge-row plant, and almost truly evergreen. The deliciously sweet-scented white flowers are produced in early summer in great abundance, and a second crop follows in September.

Lonicera korolkowi floribunda

The Blueleaf Honeysuckle will make an immense, dome-shaped shrub 15 feet high and 20 to 30 feet across. Its foliage is a peculiar shade of blue-gray, and in early summer it is bespangled with countless millions of tiny pink flowers, followed in due course by an equal abundance of brilliant red berries. This is one of the noblest shrubs in cultivation, but in order to develop to its best proportions it needs plenty of room.

Lonicera maackii

A big, 15-foot shrub of rather straggling habit, with white flowers turning yellow with age. Fruits are bright red.

Lonicera maacki podocarpa

An even more vigorous variety than *maacki*, of broadly spreading habit, with large leaves and attractive, fragrant, white flowers.

Lonicera minutiflora

The Bunchberry Honeysuckle is an upright shrub 7 to 9 feet high, with wide-spreading branches and showy whitish flowers in May and June, followed by orange-red berries in July and August. Of it Wilson says, "With lovely translucent pale orange-colored fruits, it is one of the most lovely of all Honeysuckles."

Lonicera morrowi

A native of Japan which has run wild in eastern United States. It is a handsome, broad-spreading shrub 6 feet high or more, bearing small white flowers tinged with yellow followed by bright red fruit.

Lonicera nitida

See *Evergreen Shrubs*, page 61

Lonicera periclymenum belgica

The Dutch Woodbine is a shrubby twiner which will reach 12 to 15 feet in height, decked out in dark glossy foliage and creamy white flowers stained with purple on the outside.

Lonicera punicea

A variety of *Lonicera browni*.

Lonicera spinosa alberti

Handsome, low shrub with slender branches and small, bluish green foliage. The bright rosy pink flowers are tiny but very fragrant, suggestive of heliotrope.

Lonicera syringantha wolff

The twiggy branches of this little bush are inclined to rest lazily upon the ground. Its flowers are rosy lilac, both showy and fragrant.

Lonicera tatarica

Planted everywhere is the well-known Tatarian Honeysuckle. Its foliage is delicately cut and attractive, and its bright pink flowers are followed by scarlet fruits. Frequently used for planting along the base of walls or porches where it will reach an ultimate height of 9 to 10 feet. We offer also a white-flowering variety.

Lonicera thibetica

A handsome little bush out of Tibet which seldom grows more than 5 feet high. Its partially trailing branches bear pale purplish pink flowers followed by brilliant red berries. We find it a good plant for large stony banks or rough ground.

Lyonia ligustrina

LYONIA

The Male Berry or He-Huckleberry, also botanically known as *Xolisma ligustrina*, is a twiggy shrub 12 to 15 feet high, related to the evergreen leucothoës and pieris. It is a native of eastern United States and grows naturally in moist, acid soil, making it an ideal companion for rhododendrons, azaleas, and other members of the heath family.

Myrica carolinensis

MYRICA

Well-known and famous all along the Atlantic coast, the Bayberry varies in height from a few feet to 9 to 10 feet, and is particularly valuable for planting on dry, sterile soil. It has handsome, gray, aromatic foliage which hangs on until late in the autumn. The waxen white berries are borne in compact clusters and are favorite ornaments in winter bouquets. Fragrant Bayberry candles are made from them.

Myrica gale

The Sweet Gale is a 5-foot shrub native to eastern North America. It has large, handsome foliage and yellowish fruits in the autumn. A moist, peaty soil suits it exactly.

Neillia sinensis

NEILLIA

Rather rare is this charming shrub of the Rose family. It has thornless branches and interesting bronzy foliage. The zigzag twigs terminate in dainty, tassel-like clusters of coral-pink flowers, looking for all the world like bits of trailing arbutus all puffed up with pride. The plants do well in almost any exposure, in dry hospitable places as well as in good soil. The bush is 4 feet high when mature, and covers a space 6 feet or more in diameter.

PHILADELPHUS

MOCK ORANGES are all delightful shrubs, and one or two varieties have been popular for many years. They vary considerably in habit, from slender, fountain-shaped bushes only a few feet high to spare, lofty shrubs as much as 15 feet. One of the most distinguishing features of the Mock Oranges is their delicious and extraordinarily variable fragrance, no two of them ever smelling alike. Their only disadvantage is that all of them have white flowers, so that a large planting of Philadelphus is a little monotonous in respect to color. They bloom in June, about the



Mock Oranges effectively used in the shrubbery bordering the lawn

time when roses are at their best, and are one of the most dependable decorative subjects for northern gardens. Besides the species there are many named hybrids, most of which were originated by the famous Lemoine of Nancy, France.

Philadelphus coronarius

The old-fashioned Mock Orange or Sweet Syringa is a 10-foot shrub of great vigor. Its handsome, four-petaled flowers are snow-white and deliciously fragrant. This is an old-time friend which everybody knows and admires.

Philadelphus lemoinei

Lemoine's Hybrid Mock Orange is a compact plant of graceful habit, 4 to 5 feet high, with semi-double, fragrant flowers clustered along its slender branches.

Avalanche. This is one of the best kinds descended from Lemoine's Hybrid, bearing intensely fragrant, translucent white flowers in unbelievable abundance. The plants are 5 to 6 feet tall and bend over to the ground with the weight of bloom. One bush in bloom will scent a large garden.

Bouquet Blanc. A small bush 3 to 4 feet high, of dense habit, with the medium-sized snowy flowers borne in large clusters.

Philadelphus lemoinei, continued

Mont Blanc. Graceful shrub not more than 3 feet high, which covers itself in early summer with an astonishing profusion of dazzling white flowers.

Virginal. Rated by many as the finest of all Mock Oranges. The amazingly large, semi-double flowers sometimes measure 2 inches across, and they are borne in such profusion along each branch as to weigh it down. No flower could be any purer in its sheer whiteness, and coupled with the delicious fragrance, it just commands attention, particularly as there is a scattering of blossoms throughout summer. A vigorous grower, it is well to prune occasionally to keep the flowering wood at nose-level.

Philadelphus nivalis

The Snowy Mock Oranges is a 5-foot shrub with rather small, pure white, slightly fragrant flowers in great abundance.

Photinia villosa
PHOTINIA

An interesting, large shrub 12 to 15 feet high, a good deal like a hawthorn in appearance, bearing glossy foliage which turns brilliant red in autumn. The small flowers are produced in June and are followed by brilliant red berries which hang on until the middle of winter.

For other Photinia, see the Evergreen Shrubs, page 62

Polygonum auberti
POLYGONUM

The Chinese Fleece-Vine is a slender, very delicate-looking plant of almost appalling vigor. It will grow 25 to 30 feet in the twinkling of an eye, and no one knows how far it would grow if it got a chance. Its foliage is tender green and looks delicate enough to vanish at a touch, but it is really tough as leather. The flowers hang in curious, stringy panicles that look like strands of strange silvery beads strung on wires and appear about the middle of the summer, enduring for weeks. It is an excellent vine for covering large waste spaces, ugly buildings, fences, hedges, houses, anything.

Potentilla fruticosa
POTENTILLA

The Shrubby Cinquefoil looks like a cross between a rose bush and a strawberry. It is a scrubby little plant 3 to 4 feet high with pretty foliage and jolly little yellow flowers like tiny roses or strawberry blossoms produced in unending succession from June until September. A nice thing for a large rock-garden or the front of a sunny border.

Potentilla tridentata.

See Evergreen Shrubs, page 62, and Hardy Plants, page 191.

PRUNUS

AMONG THE Flowering Cherries are several handsome shrubs called variously, Flowering Plums, Flowering Cherries, or Flowering Almonds. These are all showy and delightful early-flowering bushes resembling in a miniature way the more stately magnificence of the Japanese Cherries. They are very hardy.

Prunus glandulosa

This is one of the many shrubs called the Double-flowering Almond. It grows 5 to 6 feet high and literally covers itself with tiny chrysanthemum-shaped flowers in early spring. The Flowering Almond is one of the inevitable plants in old-fashioned gardens, and is still unsurpassed in beauty in its season. We offer both the Pink and the White varieties.

Prunus maritima

Beach Plums are erratic, wild-looking shrubs with contorted branches of most picturesque habit, bearing airy burdens of gossamer-like white flowers in April, which are so light, frail, and dainty that they seem likely to blow away any minute. The purple fruits are rather showy, but the plants are admired mostly for their exquisite fragility of bloom and irregular aspect, and, yes, the juicy fruit makes an excellent preserve. For planting on exposed seashore or lakefronts there is no plant to excel the Beach plum.

Prunus tomentosa

A contented-looking shrub, 6 to 7 feet high, is the Nanking Cherry, with straight, upstanding branches, each stem completely surrounded by tiny cherry blossoms arranged with the utmost regularity and decorum. Its flowers, which envelop the whole bush, start out to be pink, but soon change their minds and turn white. The small red fruits which follow are eagerly dispatched by any passing bird. It is difficult to understand why this adaptable, handsome, and useful shrub remains comparatively unknown, as both in flower and fruit it stands at the head of its class.

Prunus triloba plena

The Flowering Plum is also called the Flowering Almond, and was frequently planted in old gardens where handsome 10-foot trees may still be found. The small, double, quilled, bright pink flowers stud every twig and branchlet in the spring before the leaves come out. It is a very handsome, old-fashioned shrub and should not be left out of any garden. Although usually grafted on a single stem it is far more attractive and permanent as a bush on its own roots.

For other Flowering Cherries and Plums, see Deciduous Tree Section

RHAMNUS

THE BUCKTHORNS are large, ornamental shrubs of easy culture, suitable for borders and specimen use. They are valued chiefly for their handsome foliage and to some extent for the brightly colored fruits which they bear in autumn. The family is very large and includes some evergreens which, unfortunately, are confined to more temperate regions. The two varieties offered here are perfectly hardy.

Rhamnus cathartica

Brought from Europe many years ago, the Common Buckthorn bears several common names. In some places it is called Hart's Thorn, the Waythorn, and the Rhineberry. It sometimes assumes the stature of a small thorny tree with broad, oval foliage and glittering black berries borne at the base of the smaller twigs. It has naturalized itself in many places in eastern United States, and may be found along roadsides and in thickets.

Rhamnus frangula

One of the handsomest of the family, this Buckthorn is not thorny and has extremely glossy and attractive foliage. The berries are red at first but change to black. It is sometimes called the Alder Buckthorn.

RHODODENDRON

Rhododendron canadense

Rhodora is a deciduous Rhododendron. How it escaped being called an Azalea nobody knows. It has purple flowers and enjoys partially shady, moist places. Its nearest relation in the plant family is *Azalea vaseyi*, or, as the more recent books have it, *Rhododendron vaseyi*. The Rhodora has long been a favorite of those who enjoy the American woodlands, and was the subject of one of Emerson's best-known poems—

Rhodora! if the sages ask thee why
This charm is wasted on the earth and sky,
Tell them, dear, that if eyes were made for seeing,
Then beauty is its own excuse for being.

RHODOTYPOS

Rhodotypos kerrioides

The Jetbead gets its name from the shining black berries which cover the plant during the winter. It is a low, somewhat arching bush with pretty foliage and attractive white flowers in May and June. Sometimes called the White Kerria, although its white flowers have four petals instead of five.

RHUS

THE SUMAC family has an ominous name among country people and those who frequent the woods. Several of its members are virulently poisonous to the touch, particularly the Poison Ivy, *Rhus toxicodendron* and the common Staghorn which sometimes afflicts sensitive people. But the varieties in cultivation are not poisonous, and are extremely showy in flower, fruit, and foliage. They make angular, rather sparsely branched little trees or large shrubs, and are useful either as specimens or border plants, but are most effective in large plantings when a natural, informal effect is needed. All of them are indifferent to soil and satisfied with any exposure provided they have plenty of sunlight.

Rhus canadensis

A vigorous, spreading shrub 3 feet high and more, the Fragrant Sumac has aromatic leaves and showy heads of yellow flowers in spring. Little bunches of artificial-looking coral-red fruits, covered with silky hairs, appear in summer. The foliage turns brilliant orange and scarlet in the autumn. Because of its dwarf, spreading habit, it is a good plant for covering waste lands or dry, stony hillsides. Also effective when allowed to trail over the top of a retaining wall.

Rhus cotinoides

The American Smoke Tree has been honored by the special name of *Cotinus americanus*, which is rarely used. It is a many-branched, giant shrub 20 to 25 feet high, chiefly grown for the brilliant scarlet and orange color of its foliage in autumn. The flowers are inconspicuous and the fruiting panicles are not as showy as the Common Smoke Tree.

Rhus cotinus

A bushy shrub, 15 feet high or more, the Common Smoke Tree has handsome foliage and large clusters of rather showy flowers, followed by peculiar long-haired seeds which give the plant the effect of being covered with a greenish purple film of smoke. It is a very handsome shrub for a well-drained, sunny place. The yellow and purple autumn coloring of the foliage is a distinct note.

Rhus trilobata

A 5-foot shrub with bold foliage, the Skunk Bush has masses of greenish flowers followed by thickly clustered spikes of bright red fruit. It is a plant for distant borders and landscape use only, because of its nasty smell, but is a welcome addition to the few plants that will withstand much exposure.



Take time off and go to the University of Virginia, if you would see the personification of dignity lent by the trees on the old campus. It surely holds a suggestion that in your planting some considerable thought be given to effects fifty years from now.

ROSA

THE ROSE family includes a great many shrubs heretofore much neglected, but which deserve serious consideration by all nurserymen and planters. Wild roses are found only in the northern hemisphere of the world, and they vary from spiny little shrubs a few inches high and long, creeping, matting vines to erect, stubborn bushes 10 to 12 feet tall. The single-flowering shrubs have blooms of the utmost charm and delicacy, produced in abundance at their season, and most of them are sweetly fragrant. Roses like good soil, sunny situations, and plenty of room, but will endure hardship and amply repay casual care.

Rosa blanda

The Meadow Rose is a native of North America and will grow from 2 to 4 feet high. Its stems have scarcely any thorns and bear an abundance of small, single, deep rose-pink, fragrant flowers in May and June, followed by an extraordinary profusion of glittering red berries which, combined with the purple-red stems, are extremely attractive in midwinter, surpassing the red osier.

Rosa hugonis

Father Hugh's Rose was brought out of Tibet many years ago but is only just now beginning to be well known in America. It is an extremely graceful, arching shrub 5 to 6 feet high, sometimes more. One of the earliest ornamental plants to come into flower, it frequently opens in April and early May, covering itself with thousands of single, soft yellow flowers of exquisite saucer-like form and delicate fragrance. No shrub that we know is more handsome than Father Hugh's Rose at the height of its bloom. Its foliage is particularly dainty. The Welsh priest who discovered it sent a parcel of dried plants to the British Museum. The fruits were sent to Kew Gardens and there sown and eventually named for its discoverer.

Rosa lucida

The Virginia Rose, also termed botanically *Rosa virginiana*, is the common wild Rose of the eastern United States. It grows on dry banks, in swamps, and almost anywhere a plant can find foothold. The large, fragrant, beautifully tinted pink flowers are borne over a long season, and the red fruits are showy in autumn. It is a fine naturalizing plant for locations along the seashore.

Rosa lucida alba

Although it has been known for centuries, the White Virginia Rose is still rare and much sought after. It is a dwarfer plant than its pink prototype, and its foliage and stems are clear light green. It is a charming thing.

Rosa nitida

Dwarfest of American natives is the Bristly or Shining Rose. It grows from 6 inches to 2 feet high, has glittering, glossy green leaves and deliciously scented, dark rose-pink flowers during June and July. We find it a very useful plant for borders, roadsides, seashore, and large rock-gardens.

Rosa rubiginosa

The Sweetbrier is the Eglantine of history and romance. A native of Europe, it has escaped in America and run wild over large stretches of territory. Its small foliage is scented like green apples when wet with rain or dew, and the small pink flowers which bespangle it are exquisitely lovely. The Sweetbrier is a splendid thing for planting in hedge-rows, in broad borders, and anywhere that it may be allowed to scramble at will. It should never be pruned.

Rosa rubrifolia

An erect, densely branched shrub 6 to 8 feet high is the Red-leaved Rose, with small, red-tinted foliage of extremely beautiful appearance. The tiny, star-like, fiery pink flowers are pretty but not as important to the effect of the plant as its neat habit and ruddy gray color. It makes a splendid accent in an otherwise monochromatic border.

Rosa rugosa

The Japanese Rose is a rough-looking shrub with bristly stems and broad, wrinkled, glossy foliage of bold, handsome appearance. Its flowers are large, with the texture of soft silky crêpe paper, and intensely fragrant. The fruits are big as little apples and vary from green and yellow to scarlet. This is the only completely hardy, everblooming Rose of its type, occasionally throwing flowers from early in the spring until the beginning of winter. It is handsome when massed along roadsides or in borders, and under good conditions will grow all of 10 feet high, but will withstand shearing to half that height.

Rosa rugosa alba

A replica of the foregoing is the White Rugosa or Japanese Rose, except that the pure white flowers are exquisitely dainty.

Rosa setigera

The Prairie Rose, sometimes called the Michigan Rose, is a native of the Central States, and is our only North American climbing species. In the wild it makes a tall, fountain-shaped bush 20 to 30 feet in diameter and 10 to 12 feet high, and is distinguished among all northern species by its three leaflets. The foliage greatly resembles that of the blackberry (*Rubus*); and it is sometimes listed in catalogs today as *Rosa rubifolia* or the Bramble-leaved Rose. Its bright pink flowers are produced late in the season, coming sometimes in August, and in common with all wild Roses of the interior plains, they are scentless. *Setigera* is a magnificent thing for planting on waste land or rocky slopes. The tips of the branches root where they touch the ground, and thus it spreads over a great area, but with proper pruning it can be kept to reasonable size.

Rosa wichuraiana

Almost evergreen, the Wichuraian or Memorial Rose trails along the ground making a green, glossy mat covering a wide area. The flowers are produced in late July or August, in big sprays or panicles. They are pure white, semi-double or single, with an enormous center of brilliant yellow stamens. This is by far the most useful Rose for covering banks and slopes because of its close, clinging habit and its tendency to root wherever it touches the ground. *Rosa wichuraiana* is the parent of practically all our modern hybrid climbing Roses, but is by far the best for its own particular purpose.

CLIMBING ROSES OR RAMBLERS

THE ROSE occupies a peculiar position in the affections of humanity. There is scarcely any other flower which has been developed to satisfy such a variety of purposes and needs, and no other flower which exists in such a bewildering number of forms of the bloom itself. Climbing Roses alone embrace a half-dozen different types of bloom, and vary tremendously in vigor, habit, and stature. They are used for almost every purpose to which a climbing shrub can be put—on arches, trellises, verandas, covering tree trunks and fences and walls, banks, rocks, and to hide anything which needs to be hidden. They may be trained to individual pillars or over summer-houses, or planted in dense rows to make hedges. In fact, climbing Roses can be adapted to almost any purpose.

American Pillar

Very vigorous, growing 20 to 30 feet high in one season. Foliage large, glossy, and handsome. The small, single, brilliant pink flowers have a large white eye, and are borne in tremendous clusters which completely cover the plant. Its canes are stiff but can be trained into comparatively intricate designs.

Bess Lovett

A sturdy climber of moderate height, growing 12 to 15 feet. The flowers are large (3 inches or more in diameter), semi-double, bright rose-red, and it is one of the very few fragrant climbing Roses.

Christine Wright

An erect climber 12 to 15 feet high with charming, double, clear pink flowers 4 inches across, usually the earliest climbing Rose to bloom, and frequently produces a few fine flowers in late summer and autumn.

Climbing American Beauty

Of moderate growth and rather ungainly habit, with beautiful but none too healthy foliage. The flowers are unusually handsome when first open, resembling the rich crimson tints of the greenhouse American Beauty. This variety is in disfavor because of its ugly fading and should be discarded for better varieties.

Dorothy Perkins

One of the most famous Roses in the world, the plant produces extraordinarily vigorous, long wiry stems 20 to 30 feet long, so limber and pliant that they can be twisted into any shape or pattern. The flowers are fluffy, brilliant coral-pink, borne in tremendous clusters late in the season.

Dr. W. Van Fleet

A very stiff, robust plant which insists upon an erect position and is not very amenable to training. The foliage is particularly handsome and the lovely pale pink flowers, 3 inches across, are exquisitely shaped and borne on long stems fit for cutting. It is one of the most popular climbing Roses in the world.

Emily Gray

A wiry climber with extremely beautiful foliage, leathery and firm as holly. The plant grows 15 feet high or more, but is not reliably hardy in cold, exposed situations. It is the most beautiful of the yellow climbers, bearing flowers 4 inches across of a deep golden yellow tint which does not fade.

Excelsa

A plant very much like Dorothy Perkins in its wild, vigorous habit, with flowers of brilliant light red or crimson. It is the popular substitute for the discredited old Crimson Rambler which was once so popular.

Gardenia

One of the strongest growing climbers in existence, and a half-trailer. Its long, pliant canes will reach 25 to 30 feet. The foliage is very handsome, ruddy and glossy and its large, double flowers are canary-yellow in the bud, but open pure white. Useful either as a trailer or trained as a large bush.

Mary Lovett

Moderate in growth, the plant will attain 15 feet, bearing large, double, pure white flowers greatly resembling the blooms of the camellia. Assuredly, it is justly acclaimed as one of the finest white varieties.

Mary Wallace

An erect climber with sturdy stems and handsome foliage. The flowers are large, borne in clusters of three or more, and rejoice in a peculiar shade of luminous pink. It is a very popular, relatively new variety.

Paul's Scarlet Climber

The stiff stems are only moderately tall, but produce stunning clusters of blazing scarlet flowers about 2 inches across. It is the reddest of all climbing Roses and is much more extensively planted than the old Crimson Rambler.

Silver Moon

Excessive vigor characterizes the growth of this plant which will shoot up from 20 to 30 feet in a season. The foliage is large, glossy, and particularly handsome, and its large, single or semi-double flowers are snow-white with a center of golden stamens. It requires a sheltered position in severe climates.

Tausendschön

This is a vigorous climber with almost thornless stems. The flowers are small and borne in tremendous clusters and they vary from bright rose-pink to apple-blossom color, white, and cream. A charming variety, and very popular.

SOPHORA

Sophora viciifolia

We have few blue-flowered shrubs of more attractive habit. It grows about 10 feet high, with fairy, vetch-like foliage and pale violet flowers shaped like pea-blossoms in hanging clusters like those of a wisteria. A useful, free-blooming shrub for sandy soil and dry situations.

SORBARIA

SORBARIAS are good-looking, clean shrubs with compound foliage like that of the mountain-ash, *Sorbus*, a characteristic which gives the family its name. The flowers are borne in foamy, branching panicles and resemble very much those of the astilbe, a plant which at one time was called spirea. In consequence, Sorbarias are frequently referred to as "False Spirea." This is another incidence which proves the utter fallacy of placing any confidence in the common names of plants. At all events, Sorbarias are useful background shrubs and bloom in the late summer or early autumn when they are most appreciated.

Sorbaria aitchisoni

The Kashmir Sorbaria's brilliant green foliage and red stems are extremely handsome. Its foamy white flowers appear in 10-inch spikes in late summer.

Sorbaria arborea

So called because in its homeland, China, it will grow up to 15 to 20 feet tall, and just as much in diameter. Certainly the finest of this family. The enormous panicles of creamy white flowers are often 1½ to 2 feet long, grace-

fully hanging from the ends of long, arching branches. An excellent subject for planting near the border of a pond, where the regal, ash-like leaves suggest tropical luxuriance.

Sorbaria sorbifolia

While it haunts northern Asia, ranging from the Ural Mountains across Siberia to Japan, yet the Ural Sorbaria, like many other immigrants, finds itself so much at home in North America that it has "gone native" in many places. The plant grows vigorously, 10 to 12 feet high, and bears its creamy panicles of flowers in August. This Sorbaria is one of the earliest shrubs to put forth its foliage in spring, but it is a bad weed because of its tendency to spread underground, and should be avoided where space is restricted or where other desirable and less greedy plants are growing near.

SPIRÆA

THERE IS scarcely any necessity for us to talk much about Spireas. Kin Hubbard, after making a burlesque survey of the "average American family," reported that "nine out of ten have Spirea." It is true that no shrub has been so overplanted as the beautiful Van Houtte's Spirea, but this very popularity is an indication of its worthiness. Most Spireas are sun-loving shrubs, but are amiable and long-suffering, so withstand much abuse in location and soil-conditions, and generally are a source of joy and satisfaction to their possessors.

Spiraea, Anthony Waterer

One of the commonest shrubs in America, this upright, 3-foot bush has been done to death in landscape planting. It is very much different from other Spireas in that the pink flowers are borne in flat, erect clusters late in the season, and have a woolly, cottony appearance. There are several other pink-flowering Spireas, allies of *Spiraea bumalda*, but Anthony Waterer is the best.

Spiraea arguta

One of the most showy of all Spireas is this early-flowering hybrid which bursts into a profusion of dainty, airy bloom in the first weeks of May. It blooms after *Spiraea thunbergi*, but is a taller and more vigorous shrub.

Spiraea prunifolia

The old-fashioned Bridal Wreath has been sadly neglected in the mad scramble to plant *Spiraea vanhouttei*. It is a 7- or 8-foot shrub with tiny double flowers in clusters, borne with the utmost profusion along the wand-like branches. The foliage turns brilliant orange in autumn.

Spiraea thunbergi

Thunberg's Spirea is an exceedingly slender but erect shrub about 3 feet high at maturity, with thin, arching branches plentifully besprinkled in very early spring with tiny, single, snow-white flowers like a film of frost or snow lingering from winter. It is a dainty and very beautiful shrub, with feathery, fresh green foliage that in autumn turns orange and scarlet. Makes a splendid informal hedge.

Spiraea trichocarpa

E. H. Wilson brought this Korean Spirea to America in 1920, but it has only recently come into popular attention. It makes a big, dome-shaped bush very much like *Spiraea vanhouttei*, but coarser in every respect. The flowers are a little larger and some broader, and are produced three to four weeks later. It is very hardy and is becoming popular as a substitute for *vanhouttei*.

Spiraea vanhouttei

Van Houtte's Spirea certainly needs no description. While it is one of the loveliest shrubs in creation, it has been planted *ad nauseam* in city and suburban districts all over America. Doubtless, no large estate could exist properly without Van Houtte Spirea, but such plants should be given plenty of room and be allowed to develop properly into the beautiful form which they will assume if they are left alone untortured by the pruning-knife. One of the saddest sights in the world is a row of Van Houtte Spirea pruned to a formal hedge but it is one of the most beautiful if it is not overworked and mistreated.

Staphylea colchica

STAPHYLEA

The Bladdernut is an interesting, but not very showy plant, useful for a shrub border. The attractive white flowers are followed by large, pale green, inflated fruits which give it its name.

STEPHANANDRA

Stephanandra flexuosa

This slender, graceful shrub looks like some kind of spirea, with interesting, jagged foliage somewhat like a small maple leaf, and small, clustered flowers of no particular beauty. It is desirable for facing down larger shrubs, because of its fine habit and pretty foliage which turns reddish purple in the autumn.

SYMPHORICARPOS

Symphoricarpos racemosus

The Snowberry is a very graceful bush, sometimes 4 to 5 feet high, with charming, delicate foliage and interesting tiny pink flowers in June. In the

autumn, the branches are covered with large, snow-white berries which hang on until late in winter. It likes a shady, moist location, but will grow almost equally well if compelled to accept the opposite. This is a grand shrub for massing in the foreground.

Symphoricarpos vulgaris

A slender, arching shrub of rather more straggling habit than the Snow-berry, the Indian Currant or Coral Berry is very showy in autumn when covered with bunches of small, bright coral-pink fruits which hang on almost all winter. It is a fine thing for dry, partially shaded banks, but seems more or less indifferent to its surroundings.

SYMPLOCOS

Symplocos paniculata

The Asiatic Sweetleaf, also termed botanically *Symplocos cratagoides*, is the only one of 285 species of *Symplocos* which Dr. Bailey says is in cultivation, for which we thank whatever gods there be. For this one, however, we can overlook many shortcomings of its brethren. In fruit it is indeed a surprising and magnificent sight. In habit and outline it resembles a hawthorn and will grow to 30 feet if in good soil. The branches are well clothed with bright green leaves that make a splendid foil for the great mass of fragrant white flowers in spring. But it is in autumn we realize its value, for then the garlands of turquoise-blue fruits lift this shrubby little tree to a unique and well-deserved place in our memories. A grand thing!

SYRINGA

WHILE ONE of the best-known plants in the world, there are many handsome species of the Lilac family still waiting for recognition. The common, old-fashioned Lilac has absorbed the affections and attentions of planters for centuries, but it has many relatives with merits which make them attractive for variety's sake and prolonging the blooming season.

Syringa chinensis

The Chinese Lilac is sometimes sold as *Syringa rothomagensis*. It is presumed to be a hybrid of *Syringa vulgaris* and *Syringa persica*. The plant is graceful, grows 10 to 12 feet tall, and has compact clusters of purplish lilac flowers.

Syringa chinensis saugeana

A dark purple-red variety of the Chinese Lilac from which it does not differ much except in its wine-like color. If this variety were more widely known we are convinced it would in many cases replace the old Persian Lilac. The slender, arching branches are well clothed with somewhat larger, darker green leaves than its parent, and certainly the fine clusters of richly colored flowers are a great improvement on the old Persian Lilac.

Syringa japonica

The Japanese Tree Lilac is one of the most distinct of the family. It is an arborescent shrub as much as 20 feet high, with broad, downy foliage and enormous clusters of yellowish white flowers in June or July, several weeks after the Common Lilacs have passed. Some people enjoy its fragrance.

Syringa josikaea

Because of its late-blooming season, the Hungarian Lilac deserves consideration in any group planting. It is a slender shrub about 12 feet high with little merit as a specimen plant, but the small bunches of purple flowers are attractive and come into bloom about the time that the Common Lilacs fade.

Syringa persica

A distinct, wiry bush with very fragrant, light purple flowers in large, loose clusters, is the Persian Lilac. The bush is about 8 feet high, more graceful in general appearance than the Common Lilac.

Syringa persica alba

The White Persian Lilac is similar in all respects to its purple prototype, except that the blooms are white, faintly tinged with blue when first open.

Syringa villosa

A coarse, tree-like shrub 12 feet tall, the Downy or Late Lilac bears pale pinkish flowers in late June. Most people find its odor unpleasant.

Syringa vulgaris

Scarcely any shrub is better known than the Common Purple Lilac, and none endures neglect and ill treatment longer and rewards it more richly. The delicious scent of the lilac blossoms is one of man's choicest inheritances.

Syringa vulgaris alba

The White Lilacs, as a rule, are taller trees than the purple, and the bunches are inclined to be a little looser. They are lovely, fragrant, and highly desirable adjuncts to any garden.

FRENCH LILACS

THE SO-CALLED French Hybrid Lilacs are not exactly hybrids, because evidence seems to show that they are all derived from the common *Syringa vulgaris* without the influence of any other species. Any description would necessarily fall short of the real beauty both in form and fragrance of these marvelous products of selection. They are among the hardiest of all shrubs, very easily grown, and there is no good reason why



Well-grown lilacs are a magnificent adornment to any estate

they should not be the most popular of all flowering shrubs. We grow our French Lilacs on their own roots, to insure permanent satisfaction.

Alphonse Lavallée

Pyramidal clusters of medium-sized, double flowers tinted pale bluish lilac.

Charles Joly

One of the finest bright purple varieties with large, double flowers.

Charles X

Single reddish violet flowers in long sprays. Free blooming and popular.

Congo

Great symmetrical panicles of dark purple, single flowers.

Edith Cavell

Double, waxy flowers of creamy white, borne in spreading, extra-long, half-drooping clusters. One of the finest white varieties.

Emile Gentil

Broadly pyramidal clusters with bluish double flowers having a sort of striped effect when viewed at a distance.

Jan Van Tol

Pure white, single flowers in long, slender trusses. A marvelous new variety.

Jean Mace

Large, double flowers of pinkish blue in curiously irregular, compact panicles.

Katharine Havemeyer

Gorgeous big clusters of broad, double flowers almost pure blue-violet in color. One of the handsomest new Lilacs.

Ludwig Spaeth

A well-known single variety with large, narrow clusters of dull purple flowers.

Marie Legraye

A popular, old, single, white variety with medium-sized, narrow clusters.

Michel Buchner

Double, pale pinkish flowers in slender clusters. One of the most attractive.

Mme. Casimir-Perier

Charming double white flowers in compact clusters. Free blooming.

Mme. Lemoine

Snow-white, double flowers in little clusters built into compact panicles.

Paul Thirion

Large, double, slaty purple flowers in enormous panicles. Very beautiful.

President Grevy

Soft blue-violet flowers in large pyramidal clusters. A fine old variety.

President Poincare

Huge clusters of rich, double, pinkish lilac flowers. Remarkably handsome.

Rubra de Marly

Charming, single, pinkish purple flowers in medium-sized sprays.

William Robinson

Large, double, mauve pink flowers in loose, irregular panicles.

VACCINIUM

Vaccinium corymbosum

This handsome, bushy shrub is one of the Swamp or Highbush Blueberries, varying in habit from 4 to 12 feet high, with glossy foliage which turns brilliant red in autumn, and pinkish flowers followed by delicious blue-black berries. It is an acid-loving shrub and likes plenty of moisture and some shade.

VIBURNUM

VIBURNUMS comprise one of those endless families which are the despair of anyone who is trying to differentiate between the species. While there are very distinct varieties among the exotic species, many of the North American types are similar either in appearance or in what they have to offer for the garden. The family inhabits practically all of the north temperate zone and varies from evergreen species in Java to scrawny,



Most popular of the Viburnums is the happy-go-lucky Snowball bush

deciduous shrubs in northern North America. Mostly, they are upright and rather coarse in habit and foliage. A few are valued for their ornamental fruits, several for their delicious fragrance, and one or two have a romantic old-time association. They do well in a variety of situations, enduring some shade without resentment, but they prefer a moist and rather open location.

Viburnum acerifolium

The Dockmackie is a 5-foot shrub which wanders all over eastern North America from New Brunswick to Minnesota. It has small, maple-like, sharply pointed foliage, which turns dark purple in autumn. This Maple-leaf Viburnum is a real woodland child for it seems happiest when in large masses under large trees. Although neither the creamy foliage nor black fruit is at all striking, the whole thicket makes a particularly pleasing effect, especially when it assumes its rich autumn coat.

Viburnum americanum

The Cranberry Bush does not produce cranberries and is variously listed as *Viburnum oxycoccos* and *Viburnum trilobum*. It is a handsome shrub 12 to 15

*I sit where the leaves of the maple,
And the gnarl'd and knotted gum,
Are circling and drifting around me,
And think of the time to come.*

*For the human heart is the mirror
Of the things that are near and far;
Like the wave that reflects in its bosom
The flower and the distant star.*

ALICE CARY.

feet high, with relatively inconspicuous flowers and large clusters of ornamental red berries which turn color about the end of July and hang on all winter. This is a good thing to plant to get even with the birds for eating the dogwood berries.

Viburnum carlesi

Waxy pink and deliciously fragrant, the flowers of the Fragrant Viburnum are produced in early spring when the leaves are unfolding. They form round, domed clusters, and the clove-like fragrance is so sweet as to pervade a large area. The plant is a rather sulky shrub 4 feet high and 5 to 6 feet in diameter. It likes a well-drained, sunny place with plenty of moisture throughout the season. A native of Korea, there is no doubt as to its hardiness. So highly did Mr. Wilson rate this jewel that he says, "This is a real aristocrat. For the small garden, where there is room only for the choicest shrubs, the one Viburnum above all others that should be grown, is *Viburnum carlesi*."

Viburnum cassinoides

The Withe-Rod is 6 to 10 feet high, native to northern and eastern North America, growing naturally in swampy places. The thick, dull green foliage and compact habit of this plant serve to create a feeling of permanence, and although beautiful in autumn, when the leaves take rich tones of purple and red, it is really at its best in fruit. The broad bunches of berries are at first green, then change through shades of rose-pink, lavender, finally to a blue-black. Very often all the colors may be seen on the same bunch.

Viburnums



FROM a chronic-kicker customer had just come one of his characteristic letters. It kind of got my goat.

So, before answering, thought it might be well for me to walk off some of my ire.

It happened there was some new snow which the kiddies were making the most of. Two were out in front, snowballing everything in sight.

The minute I stepped out, got one smack on the hat. Before I could run the gauntlet, several telling hits had been made. By the time was out of range, had completely forgotten all about that prickly-pear letter and had my whole mind on snowballs. Just naturally it turned to the beauties of our summer Snowballs, our dependable old friends, the Viburnums.

Now that the Japonica has proven beyond any doubt that it is aphid-free, it is coming into its own with kangaroo leaps.

Considering that we are talking together, might just as well admit, first as last, that Viburnums are rather of a hobby with us. Which fact, no doubt, has a lot to do with the particularly fine stock we grow. Suspect, however, that you have no objection to fine stock, provided it is reasonably priced. Somehow it has leaked out that such is the case with ours.

Viburnum dentatum

Arrow-wood is a handsome bush with showy white flowers in May and June. It grows 10 to 12 feet high and thrives in wet ground. The berries are glittering blue-black and the foliage is purple and red in autumn. An adaptable shrub that withstands considerable shade.

Viburnum dilatatum

The Chinese Viburnum is a decorative, free-flowering bush producing 6-inch clusters of snow-white flowers in May and June. It is very decorative in the early part of the winter because of its scarlet fruits, which remain in good condition and color almost all winter.

Viburnum lantana

An ancient shrub is the Wayfaring-Tree which sometimes justifies its name by reaching 20 feet high. It does especially well in dry, limestone soil, and bears clusters of white flowers followed by red fruit changing to purple.

Viburnum lantana rugosum

A more rugged and sturdy plant is the Rough Wayfaring-Tree with its large and very much wrinkled foliage. The flower-heads are large; fruits similar.

Viburnum lentago

The Nanny-Berry is a big, tree-like shrub sometimes 30 feet tall, with rather slender branches and not particularly showy flowers in May. The fruits, which hang on until spring, are bluish black. A native of the Hudson Bay region, it is so adaptable that it has traversed the Appalachian range south to Georgia.

Viburnum molle

This mid-western species was brought into cultivation about 1900. The plant grows about 12 feet high and bears small clusters of whitish flowers in May, with bluish black fruits in autumn. It is hardy, quite similar to *Viburnum dentatum*, but is apparently indifferent to all kinds of abuse.

Viburnum opulus

The European Cranberry is a stunning shrub in early winter when covered with its large clusters of glossy red berries. The plant grows 8 to 9 feet high and in general appearance resembles the American Cranberry Bush, but is inferior to it, and is more susceptible to insect pests.

Viburnum opulus nanum

A dwarf, stubby plant about 2 feet high, useful for edging. It seldom blooms.

Viburnum opulus sterile

The Common Snowball is a jolly old plant with round, ball-like clusters of snow-white flowers the last of May. Unfortunately the foliage is subject to plant-lice which mars an otherwise attractive shrub. It should be planted in a well-drained sunny spot.

Viburnum prunifolium

A clean-looking, round-headed shrub, the Black Haw reaches 15 feet or more, with pure white flowers in clusters 3 inches across, that give place to pink fruits which turn bloomy black. Generally seen in clumps, when the drifts of foliage look almost solid, but it is in winter, when devoid of leaves, that the rigid, twiggy, horizontal branches command the eye—indeed a handsome subject.

Viburnum rhytidophyllum

See *Evergreen Shrubs*, page 68.

Viburnum sieboldi

Siebold's *Viburnum* was brought out of Japan about fifty years ago. It has a tree-like habit 15 feet high, producing creamy white flowers in May and June, followed by pinkish berries which gradually turn black.

Viburnum tomentosum

If all the other *Viburnums* were thrown into the discard, this one would justify the family. Beyond doubt, it is the most superb flowering shrub that we have ever seen, and the spectacle of a good *tomentosum* in bloom is a sight never to be forgotten. The plant has a tree-like habit, producing its broad, spreading branches in layers. In early June these horizontal branches become perfect mosaics of wheel-like clusters ringed with dazzling white flowers with spidery sunburst centers, resembling a fall of snow still remaining on the horizontal branches. The berries are red, but fleeting.

Viburnum tomentosum plicatum

The Japanese Snowball has its pure white flowers arranged in a perfectly round ball 3 to 4 inches across. Its clean foliage is quite similar to the type but no fruits are produced. Much neater and in every way superior to the Common Snowball, it makes a commanding specimen, and there are few shrubs handsomer than this when well grown.

Viburnum wrighti

A near relative of *Viburnum dilatatum*, but it has broader leaves and larger, dark scarlet fruits. There is room for red-berried shrubs, and a mature specimen, 10 feet high and through, of this plant makes a strikingly handsome subject.

Vitex macrophylla**VITEX**

The Chaste-Tree grows from 6 to 10 feet high, with big, palmate foliage and branching spikes of attractive lavender-blue flowers in September. This is a fine autumn-blooming shrub which can be pruned very severely in early spring and kept to a more or less compact habit.

VITIS heterophylla. Another name for *Ampelopsis heterophylla*. See page 108.

WEIGELA

WEIGELAS distinguish themselves in May by producing an abundance of trumpet-shaped flowers which many people consider attractive. Among the most easy plants to grow, and they are undoubtedly showy when in bloom. The more recent, named varieties are more desirable than the old types.

Weigela candida

Sometimes called the Snow Weigela, it is a large bush 7 to 8 feet high, with creamy white trumpets half buried in the numerous leafy sprays.

Desbois. The flowers are rose-pink, otherwise much like all the rest.

Eva Rathke. The flowers are dark reddish carmine, with showy white stamens, and are produced more or less continuously from June to August.

Feerie. Less coarse than other varieties, this graceful shrub produces an enormous profusion of charming flowers a week or so earlier than *rosea*.

Venusta. A charming pink variety producing its flowers in dense clusters.

Weigela rosea

The Common Pink Weigela is a well-known shrub much used for naturalizing and landscape planting. For specimen use, Feerie and Venusta are much better.

WISTERIA

MOST picturesque of vines, the Wisterias need plenty of room. They grow rapidly into enormous dimensions with withering, muscular stems which will destroy ordinary supports in short order. With severe pruning, Wisterias may be kept within bounds of a large shrub, but it is done at the sacrifice of their beauty and reason for being.

Wisteria multijuga

This Japanese variety, also listed as *Wisteria floribunda macrobotrys*, is the most wonderful of all Wisterias and should be trained in such a way that its yard-long sprays of purple blossoms may hang straight down.

Wisteria sinensis

The Chinese Wisteria is the vine commonly grown. It will produce sprays a foot long, delightfully fragrant in late May, and the plants will cover an area of 50 feet or more. We offer both the Blue and White varieties.



A hardy perennial border in the formal manner is a stately and indispensable adjunct to any large garden



Hardy Plants

YOU have heard it said over and over again that it's no trick to grow hardy plants. Also that, what's the use of buying plants when you can raise them yourself?

To either of which remarks we have only the one reply: Look at the quality of our stock.

Furthermore, that anybody can get a fair top, but it's roots that count when it comes to getting first-year blooms.

No stock you buy from us is the greenhouse potted kind. It may be started in the greenhouse, but it has always been grown-on outside before we sell it to you.

Old-fashion gardens are now decidedly new fashion. We have the plants for them. Fine, full-rooted ones. The bloom-first-year dependables.



ACHILLEA

Achillea lewisii

A charming English hybrid Yarrow which used to be called King Edward. Very low-growing and a true rock-plant, having heads of prettiest sulphur-yellow flowers in May.

Achillea millefolium roseum

Pink Yarrow makes a mat of ferny, aromatic foliage from which rise 2-foot stems bearing flat heads of tiny crimson flowers in June and July. A useful border plant and has some value for cutting.

Achillea ptarmica, *Boule de Neige*

Plant is stringy and spreads rapidly by underground suckers. It consists chiefly of 2-foot flower-stems bearing small clusters of pure white, double flowers in June and July. An excellent sort for semi-shady places and for interplanting with subjects which bloom later in the season. It has considerable cut-flower value and is much grown for that purpose.

Achillea tomentosa

The Downy Yarrow is a choice little plant which should be given rather poor soil and an elevated situation where it will remain dwarf and downy. In rich soil, the stems rise to 6 inches, carrying flat heads of bright yellow flowers. It forms tufted carpets in the European Alps on which the glorious blue gentians display their charms. Easy to grow—it will flourish at the edge of borders or on a wall.

ACONITUM

Aconitum fischeri

Fischer's Monkshood enjoys a semi-shady place where it sends up slender, wiry stems 6 feet high or more, with notched leaves and spikes of clear blue flowers in September and October. A very useful, late-blooming plant something like a delphinium. The curiously hooded flowers are very interesting.

Aconitum napellus, *Spark's Var.*

The common Monkshood (*Aconitum napellus*) is grown extensively for medicinal purposes, as the tuberous roots contain a very poisonous alkaloid known as aconitine. It seldom grows more than 4 feet high, bearing, on graceful stems, broad, hooded, deep blue flowers in July or August.

ÆTHIONEMA

Æthionema coridifolium

An elegant, wee shrublet with small, succulent, blue-gray leaves, smothered in June with heavy heads of pretty pink flowers. It is a gorgeous acquisition to any rock-garden, preferring some lime, full sun, and asks for some protection from bleak winds.

Æthionema grandiflorum

The giant and grandest of the race. Slender, waving branches make a loose shrublet with waxy gray leaves and beautiful pink flowers which surround the stems in June. This is a glorious plant and quite rare. It should have a warm, sheltered spot in full sun as its native home is Persia. It reaches 18 inches in height.

Æthionema persicum

Another Persian Stone-cress, a little glaucous, short-branching shrublet, and a real beauty for a sheltered position. In this case the plant rarely gets above 6 inches, and the whole plant is absolutely smothered with heads of bright rose-pink blossoms.

AGROSTEMMA *coronaria*. See *Lychnis coronaria*.

AJUGA

Ajuga genevensis

The Geneva Bugleweed has bright green foliage, and its flowers spring from the axil of every leaf. In May or June it is literally a miniature forest of

waving plumes of beautiful deep blue not more than 12 inches high. Most useful for the border or margins of shrubbery, and may be given a place in the rougher parts of the rock-garden. It makes an admirable companion for Phlox Vivid if it does not choke it.

Ajuga reptans

A useful plant for covering large areas in remote parts of the rock-garden. The foliage is bronze, turning to a deeper color in fall. The purplish blue flowers are borne in May and June.

ALLIUM

Allium pedemontanum

Onions do not call to mind choice alpenes, but this is the Narcissus-flowered Allium, which also goes under the name of *Allium narcissiflorum*. It has small onion leaves and 5 or 6 nodding deep pink bells on 6 to 9-inch stalks. The leaves do smell like the culinary vegetable, but not strong enough to be offensive unless roughly treated.

Allium sp., Thibet

This is not the name. It is a plant which was introduced from Thibet, and, as far as we know, has never received a name. A most useful, free-flowering species with large heads of deep rosy lilac flowers 8 to 9 inches high in June.

ALTHÆA

Althaea rosea

Hollyhocks are too well known to need a description here. We offer Single and Double varieties, Red, Pink, White, or Yellow, in separate colors.

ALYSSUM

Alyssum montanum

A charming species spreading into low tufts of gray-green not more than 3 inches high, and covering itself with

sweet-scented yellow flowers in late April and May. It desires a sandy, open soil and a high position.

Alyssum rostratum

Forms a gray little bushlet of low, soft, 4-inch branches, with little, round, hairy leaves and simply masses of small yellow flowers in May and June.

Alyssum saxatile compactum

This popular rock-garden and border plant has many common names—Golden Tuft, Gold Dust, Basket of Gold, Rock Madwort. It is a woody, wiry, half-shrubby plant with gray foliage and covered in April and May with a profusion of brilliant, brassy yellow flowers.

Alyssum spinosum

The flowers of the Spiny Madwort are white, numerous, and rather small, but the whole plant is such a distinct, neat, and silvery looking 6-inch shrublet that it demands attention and a good position in the rock-garden.

ANCHUSA

Anchusa italica

A popular border plant called Bugloss or Alkanet. During June and July it produces several coarse, rough-leaved stalks 3 to 5 feet high, bearing scattered, inch-wide, dazzling blue flowers of great beauty.

Anchusa myosotidiflora

The Forget-me-not Anchusa makes no central stalk, but produces large, heart-shaped leaves on slender stems, above which, in April and May, appear graceful clusters of clear, sky-blue flowers almost exactly like forget-me-nots. It is a superb plant for carpeting the ground under deciduous trees, thriving mightily in dry, shady places, and after the flowers have gone, the foliage maintains a pleasant appearance until frost. This is one of the most useful and popular perennials now in commerce.

ANDROSACE

Androsace lactifolia

A charming little plant, often short-lived but well worth having as it sometimes lasts several years. Flat, green rosettes and pretty sprays of white flowers.

Androsace lanuginosa

The beauty of this little alpine, the Trailing Rock Jasmine, can be fully realized when a patch is seen at least a foot wide, with long ropes hanging from a high rocky ledge, surrounded by closely set, silver, woolly leaves and myriads of bright rose-pink flowers, borne in heads on the tough but thin stems. It flowers in May or June. Give plenty of grit or lime. You will not get a foot-wide plant from any nurseryman, but your small plants will give great joy.

Androsace sarmentosa chumbyi

This is a large species of the family which gives us so many minute but wonderful alpine gems. It comes from the Himalayas. The grayish silver rosettes are flat and woolly, like a 2-inch pin-cushion. Runners are sent off from the sides in the same manner as strawberry plants. The flowers are pink, in heads on 3-inch stems. Enjoys a crevice or high position.

ANEMONE

Anemone hupehensis

This is a dwarf Anemone of the Japonica type. Its clusters of foliage are attractive throughout spring and early summer, while in August it throws up branching stems 12 to 18 inches high, bearing deep pink flowers. Should be given the same treatment as *Anemone japonica*.

Anemone japonica, Alice

A splendid border plant, making tufts of handsome foliage and slender, branching sprays of large rose-pink flowers, 2½ to 4 feet high, in September and October. Excellent for cutting.

Anemone japonica, Queen Charlotte

Similar to Alice and blooms at the same time, producing large, semi-double, brilliant pink flowers of great beauty.

Anemone japonica, Whirlwind

Much like Queen Charlotte, except a trifle more vigorous, seldom being lower than 3 feet, with large, sunny centered, snow-white flowers in September and October.

All the Japanese Anemones should have good protection in winter.

Anemone pulsatilla

The beautiful Pasque Flower is found in only a few limited areas in England, and then on the chalk downs where old Roman camps had been. Its attractive cluster of grayish, deeply cut and slashed foliage is similar to that of a carrot. Woolly buds appear in spring, and about Easter the glorious purple flowers open, covered with silky down on the outside. Equally as beautiful as the flowers are the magnificent heads of feathery silver seeds which follow. This is a rock-plant for the driest and stoniest part of the garden.

Anemone pulsatilla alba

The glorious chaste albino requiring same treatment as the other Pasque Flowers.

Anemone pulsatilla rubra

This is a good rock-garden or border counterpart of the last, but, having dull red flowers, it does not have the same fresh sweet loveliness of the type.

Anemone sylvestris

Its name, Snowdrop Anemone, describes this lovely plant. Its nodding, large, white flowers are delightfully fragrant, which is unusual in Anemones. They are borne singly on a 9-inch stem above tufts of dark green, attractive leaves. It has also a habit of running if established in good cool soil.

Anemone vernalis

At one glance it can be seen that the Vernal or Spring Windflower is a denizen of the mountains, and the very highest mountains at that. Small, deeply cut leaves are spread flat upon the ground, after the manner of a diminutive *Anemone pulsatilla*. The enormous bud is covered with beautiful, silky, golden hairs. This is but a foretaste of what is to come. The flowers are large, beautiful pearly white inside, retaining the downy gold, with, perhaps, a tinge of purple outside. Similar to the larger *Anemone pulsatilla* in form, it has been classed as a variety, but it is a true alpine species, and a gem.

ANTENNARIA

Antennaria dioica

The Mountain Cat's-ears or Cat's-foot is a neat, spreading plant with silvery rosettes and fluffy tassels of silver for flowers. Ideal for paving or the rock-garden. Try planting dwarf crocus species and other rock-garden bulbs in the carpet. They will benefit by its protection, and what could be more entrancing than drifts of the violet and buff *Crocus imperati* above this silver mat in earliest spring?

ANTHEMIS

Anthemis styriaca

A little Chamomile which has the prettiest silvery cut leaves, like the smallest pyrethrum, and lovely little, white, daisy flowers. An excellent rock-plant.

Anthemis tinctoria kelwayi

Chamomile is an aromatic plant with fine, ferny foliage producing yard-high sprays of lemon-yellow daisies about 1½ inches across. It makes a fine border display and is very useful for cutting during June and July.

AQUILEGIA

Aquilegia alpina

The true species has large flowers 2 inches across, of purest and liveliest deep blue, with incurved spurs borne on foot-high stems. It asks a good free soil and a partially shady place in the rock-garden.

Aquilegia caerulea

The Rocky Mountain Columbine is a touchy rock-garden subject with beautiful, bluish foliage and 12-inch stems bearing sprays of big, long-spurred, powder-blue flowers of great splendor during May and June. It is the handsomest of all blue Columbines, and shows up to remarkable advantage when grown in a partially shady place in the rock-garden. This is the Colorado State Flower.

Aquilegia canadensis

The common American Columbine is a plant of delicate appearance, with exquisitely beautiful foliage and small, curiously shaped scarlet and yellow flowers on 18-inch sprays during March and April. An exceedingly accommodating plant growing freely in dense shade under evergreen trees or in full sun in the rock-garden, it naturalizes very readily.

Aquilegia chrysantha

The Golden Columbine is the ancestor of most present-day hybrids. It makes bold, feathery foliage and sends up 3-foot stems bearing great sprays of clear yellow, long-spurred flowers in May and June. An excellent color combination is obtained if it is planted in the border with *Iris*, *Pallida Dalmatica*.

Aquilegia ecalcarata

A unique Oriental species of Columbine having several small chocolate-colored flowers on tall stems. For the rock-garden or border.

Aquilegia flabellata nana alba

A good rock-plant which hails from Japan. It has grayish, rounded leaflets and lovely ivory-white, granny bonnets borne singly on 9-inch stems.

Aquilegia glandulosa

The grandest and most glorious Columbine in the world, from the wilds of Siberia. Forms low clumps of cut leaves and sends up stems 12 to 18 inches high. Enormous, spurless flowers of the loveliest and purest sapphire, with white centers. The true plant is hard to obtain, and we can supply only small plants in pots, which are the only ones that will grow—large clumps refuse to transplant. They will flower next year. Do not give any protection in winter. The Siberian Columbine should be given a wide ledge just above eye-level in the rock-garden to be seen at its very best.

Aquilegia hybrida flore-pleno

These garden hybrids, descended from the Golden Columbine, produce large, double flowers of various colors.

Aquilegia hybrida, Long-spurred

A selection of the modern, tall, long-spurred Columbines in a great variety of color. These are superb border plants, succeeding well in sun or partial shade, and bloom from early May until late in June.

Aquilegia hybrida, Rose Queen

The best of the pink-flowering, long-spurred hybrids, a color which is in much demand.

Aquilegia pyrenaica

A refined miniature edition of *Aquilegia alpina*. The leaves are small, gray, and lacy, and the daintiest rich blue flowers imaginable rise 6 inches from the center of the plant. This little plant from the Pyrenees should be reserved for the rock-garden only.

ARABIS**Arabis albidia**

Rock-Cress, also erroneously called *Arabis alpina*, which see, is a creeping, gray-leaved, edging or rock-garden plant with 6-inch sprays of snow-white flowers any time after the end of March, making a beautiful, foamy cascade of white in the rock-garden until the middle of May.

Arabis albidia flore-pleno

An exceedingly choice double-flowering variety which looks better as a border plant than in the rock-garden, and has some advantage for cutting. Some people find it daintily fragrant.

Arabis albidia nana compacta

A baby edition of the common Rock-Cress, seldom more than 4 inches high. Valuable for carpeting, edging, and small rock-gardens.

Arabis alpina

Quite distinct from *Arabis albidia*, forming flat green rosettes and sending up spikes of white flowers in early spring.

Arabis alpina rosea

A rather dingy pink counterpart of *Arabis alpina*, though a useful plant.

Arabis kelleri

Keller's *Arabis* is a real alpine gem and forms fluffy, silver cushions of great charm. The flowers are white on 2- or 3-inch stems. This plant revels under scree or moraine treatment, and is remarkably happy in a high chink or crevice.

ARENARIA**Arenaria montana**

Mountain Sandwort is always in the list of the best 25 rock-plants. It is a trailing plant suitable for adorning the dry border, a high ledge in the rock-garden, or makes an invaluable wall-

plant. The exquisitely beautiful pearly white flowers are fully an inch across and are borne in May and June.

Arenaria purpurascens

This Purple Arenaria is a choice rock-plant with dwarf, neat, yet loose masses of shoots and little, dark green, pointed foliage. The flowers are small and appear in May or June. A plant for the keen gardener, but quite easy to grow, standing sun and cold well.

Arenaria verna caespitosa

The Mossy Sandwort is also known as *Sagina glabra*. It makes delightful low hummocks of freshest green, like a carpet of moss, and is starred from May to August with numerous small white flowers. Forms an excellent carpet or groundwork for the small rock-garden bulbs, and is an ideal plant for paved walks.

ARMERIA. This is the old-fashioned name for **Statice**, which see.

ARTEMISIA

Artemisia frigida

This makes a wonderful silvery mass of feathery foliage for the rock-garden, where silver-leaved plants are always valuable. It grows only 3 to 4 inches high, and is a very attractive plant throughout the year. The flowers are grayish yellow, very small, but the silver leaves which clothe the stems make it a beautiful plant.

Artemisia, Silver King

In most gardens this charming, silvery perennial is called the Ghost Plant. It makes a half-dozen or so 2 to 3-foot stems, with horizontal, widely spaced branches resembling the skeleton of a pine tree, adorned with silvery white down and tiny white leaves. The flowers are entirely unimportant. It is a lovely thing to mix with heavy flowers, like gladiolus or dahlias, and can be cut and dried in autumn for winter bouquets.

ARUNCUS

Aruncus sylvester

Goatsbeard, sometimes listed as *Spiraea aruncus*, is a vigorous, broad-leaved plant reaching 3 to 4 feet high, with tall, feathery spikes of frothy white flowers in June. A superb subject for growing in shady places.

ASARUM

Asarum shuttleworthi

The Wild Ginger is a deep green native with broad, heart-shaped leathery leaves, distinctly marbled with gray veins. It likes shade, and is an ideal ground-cover suited for planting at the edge of woodland walks.

ASCLEPIAS

Asclepias tuberosa

The Butterfly Weed is one of the common weeds of the mid-western meadows, thriving in swamps and between the railroad ties of neglected side-tracks. It is a squatty plant 2 to 3 feet high made extraordinarily showy by broad flowers of blazing orange during July and August.

ASPHODELUS

Asphodelus luteus

Jacob's Rod is a 4 to 5-foot stately border plant with dense spikes of yellow flowers. An unusual member of the Lily family, also called *Asphodeline lutea*.

ASTER

Aster alpinus

The Alpine Aster is a diminutive variety from the Swiss Alps where it grows happily in the short wind-swept alpine turf, forming rosettes of grayish green foliage, from which rise large flowers of pale blue with the faintest tinge of violet, and big golden centers. It is a plant well suited for the rock-garden where it is seen to best effect when planted in broad drifts.

Aster alpinus albus

Like *alpinus*, except that the flowers are white.

Aster, Mauve Cushion

Japan sends us this unusual plant of curious, tufted habit, making cushions a foot or more across, completely buried in purplish white daisies during late September and October. Seldom more than 4 to 5 inches high, and a delightful rock-garden plant.

Aster subcaeruleus

Very similar to the Mountain Aster, making scattered tufts of rough gray foliage from which, in June and July, ascend 12-inch stems bearing clusters of inch-broad brilliant blue daisies with yellow centers.

Aster Yunnanensis

A beautiful oval-leaved Starwort which is a close relative of *Aster alpinus*. The flowers are violet-blue and extremely large, often being more than 2½ inches across.

Aster Hybrids or Michaelmas Daisies

The hardy Aster is the queen of the late summer-flowering plants. It is a derivative of the common wild Aster of the New England meadows, and makes a superb border plant for late August and September bloom. We offer a collection of excellent varieties covering a wide range of color.

Barr's Pink. A very floriferous variety growing 4 feet high, producing deep pink flowers over an inch across in great profusion.

Blue Gem. The flowers are double, showing a small reddish eye with rays of intense violet-blue. Plant grows about 3 feet high.

Climax. A well-known, popular variety with large, pale lavender-blue flowers borne in very loose sprays. Under good conditions the plant will reach 5 feet.

Aster Hybrids, continued

Perry's White. This profuse-flowering variety produces rather small pearly white flowers in great abundance. Probably the best of the whites. Grows about 3 feet tall.

Ryecroft Purple. A royal purple sort with blooms nearly 2 inches across. It is a very gorgeous and handsome thing.

St. Egwin. Less than 3 feet high, bearing rosy pink flowers more than an inch across.

AUBRIETIA

Useful, rampant trailers for the rock-garden, enjoying semi-shade or full sun. For rock-garden, dry wall, and border edgings.

Aubrietia deltoidea

A mass of bright purple crosses in April and May.

Aubrietia deltoidea eyrei

Free-flowering light violet variety.

Aubrietia deltoidea graeca

The pale lilac Trumpet Aubrietia from Greece.

Aubrietia, New Hybrids

These are seedlings from the finest named varieties, and delight with their surprising range of brilliant colors—all shades of blues, mauves, purples, and pinks.

BAPTISIA**Baptisia australis**

The False Indigo is a lush, vigorous plant with handsome foliage, good throughout the season. The dark blue flowers, which are produced in May and June, strongly resemble lupines. An excellent plant for the border or wild garden, and, if left undisturbed, makes a handsome 3-foot bush.

BELLIS

Bellis rotundifolia caerulescens

A delicate, fairy-like form of Daisy from the Atlas Mountains, with exquisite pale lilac-blue flowers all year. Yes, even in January of 1932. It should be given a warm, well-drained position in the rock-garden.

Bellis sylvestris

This hardly seems to be a relative of the coarse, double, bedding Daisies. It is so graceful and has such refined charm that it is indeed an aristocrat for the rock-garden. A loosely formed rosette is composed of cut leaves, and dainty, crimson-tinged, Daisy flowers swing on slender 6-inch stems. Another good plant to associate with slow-growing prostrate creepers. It is partial to a warm situation.

BOLTONIA

Boltonia asteroides

As the name indicates, this is a plant much like an aster. It makes straight, unbranched, smooth, bluish green stems 5 to 6 feet high, bearing, in September, loose, erect sprays of many-rayed, starry, white flowers strongly resembling those of a hardy aster. It is a fine plant for backgrounds and an excellent cut-flower.

Boltonia latisquama nana

A similar plant with pink flowers, but much more restricted in growth, seldom reaching more than 2 to 3 feet, producing its handsome sprays of flowers in August and September.

CALAMINTHA

Calamintha alpina

The Alpine Savory is properly called *Satureia alpina*. It is a rock-garden plant making a mat of fine, small, aromatic foliage with 6-inch spikes of small, mint-like, bluish purple flowers.

CALTHA

Caltha palustris

The King-cup of marshy lands and riversides, for which position it should be used in the garden or wild garden. Its flowers are like huge golden buttercups, and the foliage is leathery and deep green.

CAMPANULA

Campanula barbata

The Bearded Bellflower frequents the Swiss alpine pastures and forms a low, flat rosette like that of a miniature *Campanula medium*, from which it sends up stiff stems bearing several nodding Cambridge blue bells, heavily bearded with hairs on the inside. These are to prevent small crawling insects from robbing the flower of its nectar. A good plant for the rock-garden and looks well when planted with the creeping *Veronica repens*.

Campanula carpatica

From the mountains of central Europe, the Carpathian Bellflower has been transplanted all over the world and has become a favorite edging and rock-garden subject. It has handsome bright green foliage in a mat 12 to 18 inches across, from which rise slender, 6-inch stems, holding blue, cup-shaped flowers upright to the sun which begin to open some time in July and continue almost until frost.

Campanula carpatica alba

Most people prefer the pure snowy white Carpathian Bellflower to the blue. It has the same habit and is an ideal rock-garden plant.

Campanula garganica

A similar plant to *Campanula portenschlagiana*, having a short, thick stem and shorter branches, with tiny, heart- or kidney-shaped leaves. The flowers are bright blue, with small white eyes, and come in June. This species seems most at home when planted in a narrow vertical crevice.



Properly chosen rock-plants frequently thrive in a partially shaded situation

Campanula glomerata

A wide-spread wild flower of northern Europe and Asia, Danes Blood has dark blue-purple flowers in dense heads at the top of an 18 to 24-inch stem in June and July. It is an excellent border plant and may be used in the more inaccessible corners of a large rock-garden.

Campanula medium

Canterbury Bells are famous old-time garden biennials. Heavy, well-developed clumps bloom the second year from seed, after which they die and must be replaced by new ones. The plants make stalks 2 to 3 feet high, bearing charming, bell-shaped flowers 2 inches or more long in great profusion in June. We offer heavy plants in separate colors—Pink, Blue, White, or Mixed

Campanula medium calycanthema

This curious form of the Canterbury Bell has been called Cups and Saucers, because the calyx is expanded to a shallow, saucer-like frill around the base of each flower. They, too, are biennials and must be replanted every year. We offer heavy plants in Blue, White, Pink, or Mixed.

Campanula persicifolia

The Peach-bell makes a mat of dark green, narrow foliage from which, in June and July, ascend stiff, wiry stems bearing an abundance of starry flowers of shining steel-blue. It is a sound perennial lasting indefinitely in the garden and spreading with great freedom.

Campanula persicifolia alba

A shining white-flowered Peach-bell which should always be intermixed with the blue for the best effect.

Campanula persicifolia, Telham Beauty

The most modern development of the Peach-bell. Its flowers are huge chalice of clear, shining blue, and exquisite in texture and form.

Campanula portenschlagiana

Dalmatian Bellflowers, termed *Campanula muralis* by some authorities, are dainty rock-garden mats of tiny bright green foliage buried in erect lavender-blue bells from June until late summer. They grow scarcely more than 4 inches high and are especially charming when nestled into a crevice in the rocks.

Campanula pusilla

A cherished little Bellflower bearing myriads of blue, nodding, fairy bells on stems only 3 to 4 inches high. It requires a sandy soil where its shoots can run and spread. Sometimes has the habit of dying out in the middle of the plant in July, but is rarely completely lost.

Campanula rotundifolia

The Bluebells of Scotland, or Harebells, vary tremendously. Average plants make a mat of round leaves from which ascend many slender sprays with pointed foliage, from which innumerable dainty violet-blue flowers hang like little bells. Under good conditions, the stems reach 2 feet or more in height, but when properly grown in a rock-garden crevice they seldom exceed 9 inches or a foot. Bloom appears in August and continues almost without ceasing until frost. Odd plants dotted through a carpet of *Thymus serpyllum*, in its varieties is a beautiful sight, and the companionship is good for both.

CARLINA**Carlina acaulis**

The Alpine Weather-glass is a dwarf Mountain Thistle not more than 6 inches high, with gigantic silver Thistles which, when dried, will last for years. In the wild state this plant is quite stemless, which fact gives rise to the specific name of *acaulis* (meaning stemless). Grow in full sun.

CATANANCHE

Catananche caerulea

Cupid's-Dart was an ingredient of the magic love-philter of the ancients. It has lovely centaurea-like, blue flowers, with darker centers, on bare stems a foot or so high, above a rosette of foliage. The barren, rough soil in the rock-garden or border suits it well, and it blooms from July until September.

CENTAUREA

Centaurea dealbata

The Persian Centaury has woolly leaves and branching stems about 2 feet high, bearing large, reddish pink flowers in July and August.

Centaurea montana

Large blue blossoms, like gigantic cornflowers, are produced from May until July by the Mountain Bluet, which at other times is a low, rough-leaved perennial about a foot high. This plant has many local common names—Ragged Robin, Ragged Sailor, Hardheads, and Cornflowers.

Centaurea montana alba

A similar variety with white flowers.

CENTRANTHUS

Centranthus ruber

Red Valerian, or Jupiter's Beard, is a 3-foot perennial with smooth stems and numerous, deep crimson, fragrant flowers in clusters. A handsome, old-fashioned garden plant too much neglected nowadays.

CERASTIUM

Cerastium tomentosum

Snow-in-Summer has silvery gray foliage and a cloud of dazzling white

flowers in June. The plant spreads rapidly and is excellent for large rock-gardens or borders. It is inclined to be weedy unless kept severely clipped back.

CHEIRANTHUS

Cheiranthus allioni

Probably no garden flower has a more vivid orange color than the fragrant Siberian Wallflower, which produces its brilliant blooms on 1-foot stalks from early May until mid-summer. While it is a very showy border plant with some value for rockwork, it is not a permanent perennial and should be treated as a biennial. Makes an ideal groundwork for violet and purple shades of tulips.

CHRYSANTHEMUM

Chrysanthemum arcticum

The true plant has roundish cut leaves and pink flowers on 9-inch stems. The false *Chrysanthemum arcticum* is a dwarf, tufted plant 12 to 18 inches high, covered in September and October by innumerable white-rayed Daisies with golden yellow centers. It is no less beautiful for being false. A late blooming border plant and a good cut-flower.

Chrysanthemum maximum, Etoile d'Or

We consider this the best of the Shasta Daisies. It has handsome, pure white flowers with golden centers, from July to September on 2½-foot stems. This type should be sprayed with a good insecticide occasionally to keep down lice.

Chrysanthemum uliginosum

The Giant Daisy is an erect, bushy, leafy-stemmed plant 4 to 7 feet high, with large, Daisy-like, white flowers during June.

Chrysanthemum Hybrids—Garden Varieties

Adelaide. Medium-sized, scarlet-bronze, very double flowers produced in great abundance. October.

Barbara Cumming. Large, clear yellow flowers with a tinge of bronze in the center. It has a remarkably long flowering period and is a vigorous grower with branching habit.

Bronze Buckingham. Single flowers, 2½ inches across, of bright glowing bronze. Very similar to the popular pink, Mrs. W. E. Buckingham. October.

Captain Cook. A Pompon variety of deep rose-pink color with a strong yellowish undertone. Perfect, double flowers about an inch across, in clusters. November.

Cranfordia. Very double, clear yellow flowers of perfect shape in clusters of 12 to 20. November. The favorite large yellow variety.

Frances Whittlesey. Rich bronze and garnet flowers of the Pompon type, borne by stocky plants seldom more than 18 inches high. September.

Irene. Pure white, button-type flowers, produced in early October by compact, neat plants.

Jean Cumming. Described by its raiser as being "undoubtedly the best white variety to date," and he is right. It is a splendid early sort with rich, soft white, well-formed flowers quite 3 inches across, and the faintest tinge of blush in the center when the buds first open.

Miramar. Large, shaggy flowers of rich bronzy red, produced in October by vigorous, bushy plants.

Mrs. Calvin Coolidge. Large, single flowers of brilliant crimson-scarlet, produced in great trusses on 3-foot plants in October.

Chrysanthemum Hybrids, continued

Oconto. Enormous, pure white flowers when disbudded; a medium size when left to bloom in clusters. October.

October Dawn. Shaggy or aster-shaped flowers of soft day-break-pink and good size borne in branched clusters in September.

Red Doty. Large, crimson flowers of Pompon type; the reverse of the rays silvery gray. Very floriferous. November.

R. Marion Hatton. Brilliant yellow flowers of medium size and true Pompon shape borne in great profusion in September.

Rodell. Dwarf, bushy plants producing brilliant yellow, button-type flowers. November.

Ruth Cumming. Large, reddish bronze, single flowers with terracotta shadings. A dwarf, compact plant. November.

Seashell. Almost single, large, pure shell-pink flowers. Very beautiful and fragrant. October.

White Doty. Pure white, very double, Pompon-type flowers with creamy centers. Tall growth. October.

Yellow Doty. Another of those remarkable Doty Chrysanthemums, this time with yellow flowers, standing wind, rain, and frosts very well.

CIMICIFUGA***Cimicifuga racemosa***

Bugbane is a native plant of great decorative value in shady places. The large, notched and divided foliage is handsome and grows about 3 feet high. During August, tall, slender spikes reaching 6 to 10 feet are produced, bearing long racemes of feathery white flowers with a curious fragrance.

CLEMATIS

Clematis davidiana

Woody plants about 4 feet high, inclined to sprawl, with bright blue, nodding flowers, clustered in heads. Not very showy, but useful in shady places. August.

Clematis integrifolia

Wiry plants about 2 feet high, with broad foliage and small, solitary, four-petaled blue flowers in July.

CONVALLARIA

Majalis

The Lily-of-the-Valley is so well known and so much loved for its chaste beauty and refreshing fragrance that it seems needless to describe it here. It is a plant for the shady corner where it can be left undisturbed for years.

COREOPSIS

Coreopsis lanceolata grandiflora

A popular border plant producing large, flat flowers, very much like a golden yellow cosmos, on 2 to 2½-foot stems, during July and August. Makes a splendid cut-flower and blooms continuously if flowers are kept cut.

Coreopsis lanceolata grandiflora flore-pleno

A double form. Very pretty.

DELPHINIUM

Delphinium chinense

A splendid, showy border plant producing 2-foot, spreading, wiry stems bearing large, intense blue flowers in June and July. This and its white variety may be used in the rock-garden.

Delphinium chinense album

Pure white form.

Delphinium Hybrids, Wrexham

This best-beloved and most aristocratic border flower hardly needs describing here. Sometimes known as the Hollyhock type, producing 6 to 7-foot spikes of flowers with the rich blues, purples, mauves, and violets that are found only in the wings of beetles. The culture is simple, but there are certain requirements which must be attended to for best results. Well-drained, deeply dug, or trenched soil is essential, with some lime mixed in. An additional dressing of lime to be forked in each spring is also beneficial. Stake the plants in good time and please try to use inconspicuous stakes placed so as to be camouflaged by leaves. The dread disease of mildew can usually be prevented if the young shoots are sprayed with bordeaux mixture as soon as they appear in spring. Keep up the good work by spraying about every three weeks. Flowers of sulphur can be dusted on also. Do not give any protection in winter unless it is absolutely necessary. If any is used, it should be a light covering of salt hay or branches of spruce subjects which do not encourage mildew.

Delphinium, Gold Medal Hybrids

A wonderful strain of garden Delphiniums from the finest named varieties, with the beautiful colors possible only in a Delphinium. Their 5 to 7-foot spikes, strong and stately, enrich the garden from June to October. Keep old flower-spikes cut off for continuous blooming. Same treatment as for Wrexham Hybrids.

Delphinium nudicaule

The red Delphinium is fine for the rock-garden or front of border where it will not be forgotten. It has a tuberous root and disappears entirely. Not more than 12 inches high, it sends up branching stems bearing horned, brick-red Larkspurs. It has very few leaves and will stand lots of sun if its roots are cool.

DIANTHUS

Dianthus allwoodi, Jean

Fragrant, pure white flowers on foot-high stems, produced continuously from May until October. Foliage gray-green and mat-like. An excellent edging or low border plant, sometimes used in rock-gardens.

Dianthus allwoodi, Robert

A similar variety of brilliant rose-pink, with dark eye, and larger flowers.

Dianthus alpinus

Nursery stocks of this superb alpine are always somewhat uncertain as it is beloved by red spider and wire-worms, and if no such pest devours it, it has a habit of being "milfy" and going off "on its own." Despite all this, every keen rock-gardener should give it several trials. In some gardens it flourishes, forming flat, deep green mats of wide leaves and enormous flowers of deep rose, spotted with crimson. Crushed oyster shells or some such lime-containing substance should be mixed in copious quantities in the soil, and a choice home found for this most glorious Alpine Pink.

Dianthus arenarius

The Sand Pink makes a broad, spreading carpet of grassy foliage and slender, 6-inch stems bearing pure white, fringed, single flowers less than 1 inch across in great profusion, more or less continuously throughout the season.

Dianthus arvernensis

It is impossible to exaggerate the beauty of this little alpine. It forms low tufts of blue-gray, pointed foliage about $1\frac{1}{2}$ inches high, and is always a pleasure in the rock-garden throughout the year. The brilliant pink flowers are borne profusely and rise an inch or so above the leaves.

Dianthus barbatus

Sweet Williams are popular old-time flowers so well known as to need no description. They are not sound perennials and should be replanted every year. We offer a double-flowering strain, White, Pink, or Red, either separate or Mixed.

Dianthus caesius

The true Cheddar Pink is found growing wild in the Cheddar gorge in western England, which seems to be its only native station in that country. Plants in this country, having to be raised from seed, vary a little from the type, which forms low mats of pretty gray foliage, soon filling a rocky ledge or making a charming gray blob of ever-present beauty on walls, covering itself in May and June with fragrant, rosy flowers on stems 6 inches high. We try to select plants truest to type. An ideal plant for the front of a border.

Dianthus deltoides, Brilliant

A very showy variety of the Maiden Pink which makes a loose tangle of small, dark green foliage from which arise flower-stems 5 to 10 inches high, bearing clusters of brilliant rose-pink flowers in June. An excellent border plant of some value for the rockery, although likely to spread to embarrassing proportions.

Dianthus glacialis

This is a charming Pink for rough, stony ground, making a shrubby little clump of green foliage with broad, bright pink flowers borne throughout the entire season.

Dianthus latifolius atrococcineus

This Cluster Pink is sometimes called the Everblooming Sweet William, which it resembles, especially in its dark velvety red color and its almost continuous flowering from June until September. Grows 18 inches high.

Dianthus neglectus

A delightful bright green tuft of gray foliage, with 3 to 4-inch stems and large, well-formed flowers of brilliant rose, enriched by chamois-yellow reverses. For ease of culture and beauty, this is indeed one of the loveliest of rock-garden Pinks.

Dianthus plumarius, Essex Witch

A brilliant pink variety of the common Clove Pink. Blooms in May and June.

Dianthus plumarius, Etoile de Lyon

A beautiful crimson form of the fringed Clove Pink.

Dianthus plumarius, Her Majesty

Fine, old-fashioned, white, double-flowering, fragrant Pink. Blooms in May and June.

Dianthus plumarius flore-pleno

An everblooming variety, producing pink and white flowers on stems a foot high from May until September.

DICENTRA**Dicentra spectabilis**

Scarcely any description is needed, surely, of the Bleeding-Heart. A fine, old-fashioned plant whose long racemes of dangling pink hearts are produced in great profusion in May and June. It is often used by florists for forcing.

Dicentra formosa

The Western Bleeding-Heart has more delicate, deeply divided or fringed foliage, and the flowers are smaller and produced in more compact sprays. Seldom out of flower from May to September. A splendid plant for shady or sunny positions in the rock-garden. Grows 1 foot high.

DICTAMNUS**Dictamnus albus**

Gas Plant, Burning Bush, Dittany, and Fraxinella are names which this plant has borne at one time or another. It is a permanent, hardy perennial growing about 3 feet high, producing spires of white flowers in June. If a lighted match is placed at the base of the spike on a still evening, the whole flower-stalk will burst into explosive flame and an aromatic scent of the burning oil will fill the garden.

Dictamnus albus ruber

A red-flowering variety.

DIGITALIS

The Foxgloves are graceful, well-known plants inhabiting, in the wild state, the edges of woodlands. They are seen at their best in such a position but succeed well in the border in half shade, or even full sun.

Digitalis ambigua

The Yellow Foxglove, also termed *Digitalis grandiflora* by some, is a sound perennial plant making tufts of long, narrow, dark green foliage from which 2½-foot, leafy stalks arise, producing smallish, tubular yellow flowers in June and July.

Digitalis ambigua Isabellina

A loftier plant resembling a Common Foxglove, with tawny yellow flowers.

Digitalis purpurea, Giant Shirley

The finest modern strain of the Common Foxglove, growing 5 to 6 feet high, producing large, tubular flowers in spikes in many variations of purple, lavender, soft pink, and white. Biennial.

Digitalis purpurea alba

The white-flowering form of the Common Foxglove. A biennial.

Digitalis purpurea rosea

A clear pink selection of the Common Foxglove. A biennial.

DORONICUM

Doronicum caucasicum

Leopard's Bane is one of the earliest daisy-like flowers to bloom in the spring. It makes large, clear yellow daisies on 18 to 24-inch stems in May and June. Superb for garden decoration and cutting.

DRABA

Draba bruniifolia

The Alpine Whitlow Grass forms small, fuzzy, spiny green cushions of tiny rosettes and has little yellow crosses in heads on slender stems 2 inches high in May.

Draba fladnizensis

This is the Arctic Whitlow Grass, quite distinct from the above, having broader flat leaves and small white flowers. It is found wild in the Arctic regions and in the mountains of Europe and North America.

DRACOCEPHALUM

Dracocephalum ruyschiana

The Dragonhead is an aromatic plant of the mint family, growing about 1 foot high, with interrupted spikes of inch-long whorls of purplish blue or purple flowers produced in June and July. A very free-flowering plant for rock-garden or border. Cut back in fall.

ECHINACEA

Echinacea purpurea

This is a showy, late-blooming plant of North America, having curious reddish purple flowers with very dark centers. Thick, rigid stems 3 to 4 feet high bear the flowers of this most effective border plant.

ECHINOPS

Echinops humilis cyanea

A smaller Thistle than *ritro*, about 3 feet high. It has hairy leaves and large, round heads of gray-blue flowers in September.

Echinops ritro

The Globe Thistle is a coarse, 6-foot perennial with thistle-like leaves and round, spiny heads of steely blue flowers in June. A useful background or naturalizing plant.

EPIGÆA

Epigaea repens

Trailing Arbutus, Ground Laurel, or Sweet-scented Mayflower are some of the names applied to this North American wildling which everybody loves and really few possess. The trouble is in getting it established from the wild state, which is, perhaps, just as well for the plant and, incidentally, the nurseryman. It is a prostrate, trailing evergreen with rounded leaves and clusters of sweetly scented, delicate pale rose flowers, hence one of its names. Get established plants and use in the woodland in peaty, acid, sandy soil.

ERIGERON

Erigeron aurantiacus

Orange is suggested by the name, and these are jolly little perennials for rock-garden or border, with orange flowers and flat green leaves.

Erigeron coulteri

The Mountain Fleabane from California is a little more than a foot high, with large, mauve-pink and white daisies in July.

Erigeron speciosus

A shrub-like plant with stiff, straight stems 18 inches high, the Oregon Fleabane is topped by fine, large, lilac-blue flowers in June.



Perennials used informally to alleviate the severity of a straight garden walk

ERINUS

Erinus alpinus

Sometimes known as Liver Balsam, or Roman Wallflower, this neat and distinct little plant makes tufts of downy dark green foliage. It is in its glory when growing on some old retaining wall, where it will smother itself with masses of violet-purple flowers, often varying from lilac, to pink and to white. The plants in winter have the appearance of a clump of green moss. Should be in every rock-garden and in cracks on stone steps.

ERYNGIUM

Eryngium planum

Eryngo, or Sea Holly, has a broad rosette of foliage from which a 2 to 4-foot branching stalk arises, adorned with small, spiny, steel-blue heads of flowers, each set in a bract of bright, glittering blue leaves with very spiny edges, in July and August. An excellent plant for the back of the border and of some value for drying for winter bouquets.

ERYSIMUM

Erysimum linifolium

This plant is a native of Spain and is also known as *Cheiranthus linifolium*. Stronger growing than *Erysimum pulchellum*, it likes to deck the sunny walls and high places with crowds of lilac flowers above clumps of cut leaves.

Erysimum pulchellum

The common name for this is Blister-ress. It is a sweet little plant closely related to the wallflower, and enjoying the poor soils of a stone wall or high rocky ledge. It makes little spreading mats of rich green, vigorous foliage, and is simply burnished with a sheet of bright yellow drapery in earliest spring.

EUPATORIUM

Eupatorium coelestinum

The Blue Mist-Flower, sometimes called Hardy Ageratum, comes up very late in spring and grows 2 to 2½ feet high, making branching heads of soft lavender-blue flowers of great grace and beauty. It is a superb late-blooming subject and should be planted freely in borders and in landscape work.

Eupatorium fraseri

A form of the White Snakeroot with rough, 2 to 4-foot stems and coarse foliage tipped with small clusters of fuzzy white flowers in July and August. Excellent for dry, sandy soil and does well in shade.

EUPHORBIA

Euphorbia corollata

A Milkweed from the Central States, growing 2 to 4 feet high, with smooth stems and foliage and great branching sprays of tiny white flowers very much like the annual Baby's Breath in appearance and, like it, used as an auxiliary cut-flower.

Euphorbia polychroma

Cushion Spurge is a squat, homely plant with an enormous number of leaves and many stems tipped with small clusters of inconspicuous yellow flowers, surrounded with a bright yellowish rosette of foliage in early spring. Curious and attractive.

FESTUCA

Festuca glauca

Blue Fescue, or Blue-stemmed Grass, is a miniature of the great ornamental pampas grass, with bright blue-gray foliage. It is a splendid edging plant when used in quantity, for it seldom gets more than a foot high and has some value in the rock-garden.

FUNKIA. See *Hosta*.

GAILLARDIA

Gaillardia grandiflora

A popular perennial for garden decoration and cutting, with broad, flat, brilliant yellow flowers edged with red, borne on 18-inch stems from May on through the summer.

Gaillardia grandiflora, Portola

A very much improved form of the Blanket Flower, with stiff stems and very large orange and red flowers from July to August.

GAULTHERIA

Gaultheria procumbens

The well-known Wintergreen, which is found growing in the cool, moist shade of evergreens from Canada to Virginia. It has tough, rounded, reddish leaves which take on a deeper tinge in fall. The sweet, but small, drooping flowers are white, and are followed with red berries the size of peas, which make it a most attractive plant in winter.

GENTIANA

Gentiana purdomi

Blue. This is probably the bluest and loveliest of the Gentians which grow easily in this country. Find it a fairly sunny pocket and deep good soil, and it will reward you with gorgeous, open cups of bluest blue, spotted with white. They are borne in clusters on floppy stems.

Gentiana septemfida

From the Caucasus comes the Crested Gentian with its lovely blue cylindrical flowers, prettily marked with greenish brown on the outside and greenish white on inside. The inside of the mouth is finely fringed. Its flowers are borne in clusters at the head of floppy, 9-inch stems. This is one of the easiest growing Gentians. It prefers full sun and any good garden soil which is not too acid.

GERANIUM

Geranium sanguineum

The Bloody Cranesbill. An excellent plant for the rock-garden where its blood-red, or slightly magenta flowers will not clash with other brightly clothed denizens. The foliage is rounded, grayish, and very attractive throughout the summer season. Grows 9 to 12 inches high.

Geranium sanguineum album

A good white variety of the Bloody Cranesbill.

Geranium sanguineum lancastriense

A rare British native which seems to have a more refined habit than *Geranium sanguineum*. The leaves are grayer, and the thick shoots spread flat on the ground, throwing up dainty shell-pink flowers streaked with crimson.

GEUM

Geum borisi

The Bulgarian Avena is a remarkably free-flowering species with bright orange-scarlet blossoms on wavy stems. It is better for the rock-garden than the following varieties.

Geum chilense flore-pleno

Small, rough-leaved plants with 18-inch stems bearing brilliant red flowers like tiny roses. A good border plant where it does not suffer from drought.

Geum, Lady Stratheden

This is a good sister plant to the above, with even larger double blossoms of bright old-gold on 18-inch stems. The two grown together make a striking color contrast.

Geum, Mrs. Bradshaw

A glorified Chilense with large, double flowers of vivid red from June until September.

GLOBULARIA

Globularia trichosanthes

The Syrian Globe Daisy is a rock-garden plant which makes a tuft of foliage bearing numerous bright blue, ball-shaped heads of flowers on 6-inch stems in May and June.

GRASSES. See *Festuca glauca*.

GYPSOPHILA

Gypsophila cerastioides

A real gem for the rock-garden with gray-green foliage studded with deep-throated white blossoms delicately veined with purple. Should be given protection in cold localities, and the free, well-drained soil which every rock-garden should have.

Gypsophila paniculata

The well-known Baby's Breath is an enduring perennial 2 feet high and as gray through, covered with tiny, mist-like flowers in June and July.

Gypsophila paniculata, Bristol Fairy

The best variety of double Baby's Breath, growing 3 feet high or more, with double, pearly white flowers $3\frac{3}{8}$ inch in diameter, profusely borne in June and occasionally as late as September. A most useful florist's flower. For lightness and daintiness it is unsurpassed. Excellent with sweet peas, and is in much demand for table decorations.

Gypsophila repens

A dainty, trailing little plant, the Creeping Baby's Breath covers itself in spring and midsummer with small, dazzling white flowers on stems 4 inches high, in July and August. Even if only for the mat of neat foliage this little rock-garden denizen is worthy of a place.

HELENIUM

Helenium autumnale superbum

Sneezeweed is an ugly name for these charming late-flowering relatives of the sunflower. This variety grows 4 to 5 feet tall and has brilliant golden yellow, wheel-shaped flowers in August and September.

Helenium pumilum magnificum

A dwarf variety seldom more than 2½ feet high, with brilliant lemon-yellow flowers.

Helenium, Riverton Gem

The 3-foot plants bear large heads of charming reddish bronze flowers in August and September. Very decorative in the garden and an excellent cut-flower.

HELIANTHEMUM

Helianthemum chamaecistus mutabile

The Sun Roses are wiry little shrubs, companions of the harebell on the chalky hills of England, and abundant throughout the European Alps. As they spread into low tufts, when grown on a wall they will hang in attractive festoons. The brilliantly multi-colored flowers are like tiny single roses, borne in such great profusion that a continuous sheet of color is enjoyed through early summer. Use them on the wall rock-garden or in the dry sunny border. It is advisable to cut any straggling growth back once a year.

Aureum. Bright yellow flowers from June to August. Grows 8 inches high.

Double Orange. A fine variety and one of the lowest growing kinds. The branches spread nearly flat on the ground. The brilliant, double orange flowers make this a most interesting and attractive Sun Rose.

Helianthemum chamaecistus mutabile, continued

Fireball. Single, bright red flowers from June to July. Reaches a height of 9 inches.

Macranthum. A green-leaved variety producing great numbers of creamy white, single roses.

Mrs. Earle. Dazzling, double, crimson flowers. Everblooming. Grows 9 inches high.

Rose Queen. Lovely single pink flowers. June, July. Plants grow 8 inches high.

Sudbury Gem. Crowds of bright clear pink flowers on a low, grayish shrublet.

The Bride. Silvery gray foliage and white flowers. Grows 12 inches high.

HELIANTHUS

Helianthus decapetalus multiflorus flore-pleno

One of the numerous wild Sunflowers which makes an excellent plant for the back of a large border, growing 4 to 5 feet high, with large sprays of brilliant yellow flowers in August and September. Give an occasional dusting with flowers of sulphur to keep down mildew.

HELIOPSIS

Heliopsis scabra, Excelsa

A new variety of the False Sunflower which grows about 3 feet high, producing semi-double, golden yellow flowers from July to October.

Heliopsis scabra pitcheriana

This popular and useful tall border plant grows 5 to 7 feet high and produces large quantities of rather light yellow flowers, very similar to wild Sunflowers in July and September.

HEMEROCALLIS

Hemerocallis, Dr. Regel

A dwarf variety with deep orange-yellow, fragrant Lilies in May.

Hemerocallis flava

The Lemon Lily is a delightfully fragrant, pale yellow, lily-like perennial suitable for almost any situation in the garden, although it does best in moist ground. The plants grow 2 to 4 feet high and produce, during May, stiff, branching stems bearing several trumpet-shaped lemon-yellow flowers which are sweetly fragrant.

Hemerocallis, Sovereign

Prolongs the blooming season of the Hemerocallis until late June, producing its deep orange flowers on tall, slender stems.

Hemerocallis thunbergi

The Japanese Day Lily, seldom more than 1 foot high, produces its clear lemon-yellow flowers in mid-July.

HEPATICA

Hepatica acutiloba

The Liverleaf, Mayflower, or Hepatica is one of the earliest common wild flowers to bloom in spring. It is suitable for wild gardens, naturalizing, and special situations in the rock-garden. The flowers are bluish, on stems 3 to 6 inches high.

HESPERIS

Hesperis matronalis

Dame's Rocket, or Sweet Rocket, is an old-fashioned perennial which has overrun many old gardens. Plants grow vigorously 2 to 4 feet high, producing heads of lavender-pink flowers in May and June.

HEUCHERA

Heuchera sanguinea, Perry's White

The Alum-root has tufts of ornamental, ivy-like foliage from which arise slender, 18-inch stems showering a spray of pure, dainty white bells in June.

Heuchera sanguinea, Pluie de Feu

The finest of the Coral Bells, producing, in June and July, brilliant red flowers hanging from 2-foot stems.

Heuchera sanguinea, Rosa Mundi

A lovely clear pink form of the Coral Bells.

Heuchera sanguinea alba

Creamy white flowers in graceful sprays. Plants grow 2 feet high.

HIBISCUS

Hibiscus moscheutos

The Mallow Marvels are gorgeous summer-blooming perennials, almost shrub-like in habit, growing 4 to 6 feet high, with bold foliage and enormous, saucer-like pink, red, or white flowers, sometimes as much as 10 inches in diameter. They are spectacular landscape plants and will bloom in August and September. Red, pink, or white.

HOLLYHOCK. See *Althaea rosea*.

HOSTA

Hosta caerulea

The Plantain Lily, also known as *Funkia caerulea*, has broad, brilliant green foliage in an enormous rosette 2 feet or more across. Its slender, 18-inch stems arise in July and August, bearing rather pretty blue, lily-like flowers. A good plant for growing in shady places.

Hosta plantaginea grandiflora

The White Plantain Lily, also termed *Funkia subcordata grandiflora*, is a similar plant with taller stems and large, snow-white, lily-like flowers in July and August. A very useful and attractive plant for shady or otherwise disused places.

Hosta plantaginea minor

The Dwarf Plantain Lily, also known as *Funkia subcordata minor*, is a smaller edition of the foregoing, seldom more than 10 inches high.

Hosta variegata

An ornamental foliage plant producing large, deep green leaves edged and veined with creamy white. The flowers are blue, but relatively unimportant.

HOUSTONIA

Houstonia caerulea

The Bluet, or Innocence, is a small creeping treasure with tiny leaves simply smothered, in May and on through the summer, with delicate pale blue stars on fine stems 3 to 4 inches long. It is an exquisite little native inhabiting the grassy meadows.

HYPERICUM

Hypericum coris

Like a wee heather or Erica with tiny, erect stems surrounded by equally tiny leaves. It rejoices in full sun and good soil. One hardly expects such a neat and desirable plant to flower, but small golden suns come from the side of the stems in June. It will reach 9 inches and should be given a good place in the rock-garden.

Hypericum repens

Too often this is sent out for *Hypericum reptans*. It is somewhat similar though more of a shrublet with woody stems, which rise erect, then flop over, making an appealing grayish green

hummock. The flowers are golden yellow, with the usual pretty stamens of the race. It stands rougher treatment than the following species, although it pays for good attention. Full sun and a high ledge in good soil are its only needs.

Hypericum reptans

The most sumptuous and glorious species of the whole race. Small, rounded, bright green leaves on thin, reddish shoots. They deepen in color in fall, lie prostrate, and form such a pretty carpet, on which large, cone-shaped buds appear. These burst into enormous brilliant golden suns of unparalleled beauty with long stamens. This is a rare *Hypericum* and must not be confused with *Hypericum repens*. The rock-garden alone should be the domicile of this alpine gem, and only the choicest position given.

For larger *Hypericums*, see Shrub Section.

IBERIS

Iberis gibraltarica

As the name indicates, this is a handsome rock-plant from Gibraltar. It makes a dark green mound about a foot across and 10 inches high which is covered in May with a dense mass of whitish lavender flowers in many delicate shades.

Iberis sempervirens

The Common Candytuft is a wiry, half-shrubby plant which makes a big mound of snow-white flowers in April and May. Very useful in large rock-gardens and a splendid edging plant in the perennial border.

Iberis sempervirens, Little Gem

A 6-inch edition of the common Candytuft. Excellent for small rock-gardens and narrow edges.

Iberis sempervirens, Snowflake

An improved form of the common Candytuft with larger and even whiter flowers. Very handsome.

INULA

Inula ensifolia

The Sword-leaf *Inula* makes little squat clumps, broader than they are high, which in August and September are smothered with golden yellow, many rayed Daisies. It may be used on the rock-garden, but is best in the foreground of a sunny border. A most suitable companion for *Aster*, *Mauve Cushion*.

Inula glandulosa superba

Fine for the herbaceous border. Long, oval leaves and colossal golden suns in August and September on stems $1\frac{1}{2}$ to 2 feet high.

IRIS

Iris chrysographes

This small Oriental *Iris* has standards of deep violet and falls of golden yellow, veined velvety purple. It is really a lovely species suitable for a position near streams where the soil is not too sodden. Grows fairly well in the rock-garden if a cool position can be found.

Iris cristata

The Crested *Iris* is a dainty little rock-garden or edging plant suitable for almost any sunny situation in which it will multiply rapidly, producing a mat of stiff, knife-like foliage and an abundance of pale lavender and gold, orchid-like flowers in May on stems 4 inches high.

Iris dichotoma

Something different. This is a 2-foot plant which does not seem to be an *Iris*. It has much-branched stems and a great profusion of flowers with white standards striped with purple, and falls of white flecked or spotted with purplish brown. The leaves are broad and about a foot in length.

Iris forresti

This Iris was introduced by that intrepid collector, George Forrest, from western China. It is happiest in moist ground where its gorgeous golden blossoms, veined with bronzy purple, will develop to fullest perfection. The leaves are grassy and narrow, and the whole plant reaches only 18 inches.

Iris germanica

This is the popular German Iris or Garden Iris so widely used for garden decoration and landscape planting. It likes a dry, sunny situation for best results, and no plant produces a finer effect or remains in good condition longer after the flowers are gone. We offer a collection of carefully selected varieties.

Alcazar. An enormous flower of stately bearing and good form, with soft violet standards, falls of crimson-purple, and beautifully marked throat. This Iris is delightfully fragrant.

Ambassadeur. The most popular Iris in the world. A tall, strong-growing, late variety with colossal flowers and a blending of rich ruby-red and other colors with overtones of purple, which defy description. A real beauty.

Dream. A ladies' Iris. Delicate shade of clear pink and a name that aptly describes it. This should be in every collection.

Florentina Alba. A splendid creamy white with faint lilac markings. Good old standby.

Harriet Presby. A really good pink variety. Tall and fragrant. One of the latest to flower.

Isoline. This is a 3-foot, fragrant favorite with flowers of sheeny, crinkled texture. The standards are lilac-rose, with the faintest tinge of yellow, and the falls a deep purple-rose, with amber or gold veining. Large and exquisite flowers on sturdy stems.

Iris germanica, continued

King. Old-gold standards and rich maroon falls, with yellow borders, make an ideal color combination. A vigorous grower with flowers of good substance.

Lent A. Williamson. How difficult it is to choose the best Iris. Here we have one of the very best tall varieties. The standards are lavender-violet and the falls are of that rich violet found in pansies. Truly a lovely Iris.

Lohengrin. A vigorous plant with massive, mauve-pink flowers.

Lord of June. This is a general favorite, with giant flowers delightfully fragrant. The standards are lavender and falls rich violet-blue. A very free-blooming variety and excellent grower.

Mother of Pearl. An extremely large and glorious Iris of good shape and form. Why attempt to describe the color when the name itself does that? Late flowering and tall.

Nibelungen. A most useful dwarf variety good for landscape gardening. Bronze and gold.

Pallida dalmatica. A most popular old variety which more than holds its own. Tall, with beautifully shaped flowers of the most exquisite shade of lavender-blue imaginable. One of the finest border Irises. An admirable bed companion for *Aquilegia chrysantha*.

Prospero. A glorified Lent A. Williamson. Splendid form and very free flowering. A good tall variety and vigorous grower. In color it is slightly paler than Lent A. Williamson.

Rhein Nixe. A bright and showy variety, good for massing. White standards and purple falls.

White Queen. This is a lovely tall Iris of purest white. Very floriferous and healthy-growing.



This rock-garden, properly constructed and painstakingly planted, looks as if it had been in place since the beginning of time

Iris kaempferi, Bride

Japanese Irises are moisture-loving plants which bloom in July. This is a gorgeous, reddish plum-colored variety with large white center. Splendid for naturalizing in moist places or near pools, growing 2½ feet high and coming into bloom in July.

Iris kaempferi, Eclipse

Tall, with huge, well-formed, velvety purple flowers.

Iris pumila

These are choice lilliputian Flag Irises, flowering earlier than their larger relatives. They are especially attractive when placed at the side of small rock pools.

Iris pumila, Cyanea

The Pygmy Iris grows scarcely 9 inches high and produces violet-colored flowers in May.

Iris pumila, Excelsa

An even dwarfier form with dull yellow flowers in May.

Iris pumila, Schneekuppe

A gorgeous white, large-flowered variety about 8 inches high.

Iris sibirica

The Siberian Iris makes a tussock of long, sword-like foliage from which arise slender, 2-foot stems crowned with many delightful purple-blue flowers in May and June.

Iris sibirica, Perry's Blue

A taller plant than *sibirica*, reaching 3 to 4 feet. The flowers are brilliant powder-blue, and very showy.

JASIONE**Jasione humilis**

The Sheep's Scabious is an interesting little rock-plant from the Pyrenees Mountains, seldom more than 9 inches high, producing, in May, clusters of blue flowers very much like a scabious.

KNIPHOFIA**Hybridus, Cardinal**

Perhaps better known as Tritoma or Torch Lily. This strong-growing perennial has long, strap-like leaves and stout stems with brilliant Red-Hot Pokers in July and August. A very hardy type.

Pfitzeriana

The Bonfire Torch Lily produces large numbers of orange-scarlet spikes. It is in great demand as a cut-flower and gives a colorful display in late summer. This variety is not quite so hardy as the last and should be well protected or taken up and stored for the winter.

LAVANDULA**Lavandula vera**

The true Sweet Lavender of old gardens is a 3-foot, shrubby perennial producing long spikes of lavender flowers from July until frost.

Lavandula vera, Munstead Variety

A compact or dwarfier form of Sweet Lavender, growing less than 1 foot high. It is much used for edging and has some value as a rock-garden plant.

LEONTOPODIUM**Leontopodium alpinum**

This is that romantic flower, the Edelweiss, for which many a Swiss lad risks his life in order to gather it for his lady love. Quaint, starry flowers like silver felt are borne on 6 to 9-inch stems, above a gray rosette of leaves. It is purely a myth that this plant is a brute to grow. Give it a well-drained ledge, with lime and full sun, and you will have a pleasant surprise for visitors.

LIATRIS

Liatris pycnostachya

Kansas Gayfeather is a very showy summer flower. The plants look like purple sky-rockets, sweeping upward 4 to 5 feet, commencing to bloom at the top, producing innumerable, fuzzy, brilliant bluish purple flowers. When grown in clumps, they make a fine showy appearance, and they will endure dryness and poor soil better than most garden plants.

Liatris spicata

A somewhat dwarfier plant, producing looser spikes of flowers of about the same color as the Kansas Gayfeather during July and August. It is excellent for naturalizing along streams, as it enjoys a lot of moisture.

LIMONIUM

Limonium latifolium

The Sea Lavender makes a rosette of dark leathery foliage from which very much branched stems arise 2 feet or more, studded with lacy lavender-blue flowers which may be dried and used for winter bouquets.

LILIUM

Lilium regale

The Regal Lily is the finest and easiest of all Lilies to grow. It makes 3-foot, leafy stems, crowned at the top with a whorl of large, trumpet-shaped flowers, waxy white stained with purple on the outside and flushed with golden yellow within. The bulbs should be planted 4 to 5 inches deep in a sunny place. Ours are vigorous plants raised from seed here and are far superior to large, imported bulbs.

LINUM

Linum flavum

An unusual yellow *Linum*, also known as *Linum arboreum*, or Evergreen Flax. It grows no more than a foot high, bearing profuse quantities of large golden yellow flowers. The leaves are much wider than those of *Linum perenne*, and in mild climates persist all winter. This useful rock-garden plant comes from the hilly parts of southeastern Europe and Asia Minor, so it is as well to give good protection in winter.



The easily grown Regal Lilies make an impressive show

Linum narbonneuse

A beautiful and distinct Flax from southern Europe, bearing clouds of large blue flowers on bushy plants all summer. Fine for the large rock-garden or border. It needs full sun and a good garden soil.

Linum perenne

Perennial Flax makes a cluster of slender, erect stems 1 to 2 feet high, covered with smooth, grayish foliage, and adorned with innumerable sky-blue flowers from June until September, which close in the late afternoon.

Linum perenne album

A white-flowering form which is very pretty when mixed with the blue.

LITHOSPERMUM

Prostratum, Heavenly Blue

This lovely Gromwell is eagerly sought for its intense blue flowers which are studded along the trailing mass of woody branches. Even without the exquisite flowers, the little rock-plant would rank high because of the intricate mat of evergreen foliage that gets to about 4 inches high. The plant strongly resents lime, so in a limestone section it will succeed only in a specially prepared pocket of lime-free soil. Although it will grow in open sun, it much prefers some shade.

LOBELIA

Lobelia cardinalis

The Cardinal Flower is an American native usually found in wet, sandy places or along water-courses. In the garden it succeeds in almost any situation, producing tall, 3 to 4-foot stems, with spikes of brilliant cardinal-red flowers in July and August.

Lobelia siphilitica

A pretty native of moist meadowlands, with deep blue flowers on 3-foot stems. The smooth, deep green leaves

make a low clump. It stands the sun well if it is planted in moist soil, otherwise give it shade.

LUPINUS

Lupinus polyphyllus

Handsome, 3-foot perennials with thick, palmate foliage and long spikes of clear blue, pea-like flowers during June and July.

Lupinus polyphyllus albiflorus

An excellent selection of pure white-flowered varieties.

Lupinus polyphyllus, Pearl Rose

We consider this the finest pink-flowering Lupine.

Lupinus polyphyllus, Yellow

Vigorous plants producing flowers in various shades of yellow and apricot.

Lupinus, Assorted Hybrids

An excellent selection of all the various colors—Blue, White, Yellow, and Pink.

LYCHNIS

Lychnis alpina

A diminutive alpine form of *Lychnis viscaria*, inclined to be short lived and having tufty clumps with small clusters of rose-pink flowers on 3 to 4-inch stems in April and May.

Lychnis chalcidonica

The Maltese Cross is one of the old-time garden perennials. It makes coarse, leafy stems 2 to 3 feet high, crowned in June and July by clusters of scarlet flowers which resemble a Maltese cross.

Lychnis haageana

A handsome plant with shaggy stems 1 to 1½ feet high, and 1-inch stars of splendid scarlet or orange-scarlet. The plant disappears entirely in winter.

Lychnis viscaria splendens flore-pleno

An excellent border plant spreading rapidly into large tufts from which arise 2 to 3-foot stems bearing flat clusters of magenta flowers in May and July.

LYTHRUM***Lythrum salicaria roseum***

A charming native perennial for naturalizing along streams or ponds and also successful in the perennial border. It makes tough, erect stems from 3 to 5 feet high, bearing sprays of bright reddish purple flowers from July until September.

MAZUS***Mazus rugosus***

This charming little plant is quite prostrate, and, spreading rapidly, it soon forms a bright green carpet which in fall turns bronze. The flowers are large for so small a plant, and somewhat resemble a lilac-blue orchid. It is an excellent subject for covering large pockets in the rock-garden, and can easily be kept in bounds.

MECONOPSIS***Meconopsis baileyi***

This is really a variety of *Meconopsis betonicifolia*. It is the sensational Blue Poppy of Thibet, so difficult to grow in this country. The large, sky-blue flowers of crinkled, satiny texture have won it world-wide admiration. We may have growing plants of this Oriental wonder, but the climatic difficulties with which we have to contend in raising them are so great that our stocks are uncertain. At the time of going to press we have a good thousand healthy seedlings. Shady woodland, with vegetable soil, moist in summer and dry in winter, are its main requirements.

Meconopsis wallichii

The same uncertainty applies to this. It is also called the Satin Poppy, and has tall, branching stems with occasional leaves, and a central crown of foliage at the base. The pale blue flowers are $2\frac{1}{2}$ inches across. It is usually of easier culture than *baileyi*.

MENTHELLA***Menthella requienii***

A microscopic jewel from Corsica, also known as *Mentha requienii*. A member of the Mint family, it is one of the smallest flowering plants. Tiny, round, deep green leaves hug the ground like a fairy moss, and minute lilac jewels, barely perceptible to the average naked eye, sparkle to the observant with an alluring eye. Fine for the paved walk where there is the slightest shade from the burning sun. It is a most useful subject, giving off a strong scent of spearmint when crushed.

MITCHELLA***Mitchella repens***

The leaves and brilliant red berries of this Partridge Berry, or Squaw Berry, are often to be seen in winter gardens made in goldfish bowls and the attractive berries grace many a Christmas table. A charming little native plant with glistening, round, white-streaked leaves. It produces white, flaxen flowers before the berries, and revels in the acid soil and shade of woodland, or a nice shady pocket of the rock-garden. Grown in pots, ensures safe transplanting.

MONARDA***Monarda didyma*, Cambridge Scarlet**

A fine old perennial commonly called Red Bergamot, Oswego Tea, or Bee-balm, having fine aromatic foliage and large heads of cardinal-red flowers from June until August.

MYOSOTIS

Myosotis scorpioides

The common Forget-me-not of our eastern swamps, also known as *Myosotis palustris*. A rampant perennial 10 to 12 inches high, producing interminable clusters of tiny pale blue flowers with golden eyes from May until frost. It enjoys a wet, sunny place but will succeed in any ordinary border.

NEPETA

Nepeta mussini

Gray Catmint is an aromatic, dusty gray plant of velvety texture which makes 10-inch clumps spreading over a yard square. The flowers are a bluish mauve and are produced from April until June. It is an excellent edging plant and useful in the rock-garden or the top of dry banks and walls. There are two forms—we have propagated only the compact small-leaved type that flowers profusely.

NIEREMBERGIA

Nierembergia rivularis

A spreading, flat plant with spoon-shaped foliage about 2 inches high and studded all over with pure white, cup-shaped flowers held upright to the sun. It likes a moist, sunny border but will grow fairly well in dry soil and is an excellent rock-garden plant if kept under control. A light winter covering will insure its permanence.

ŒNOTHERA

Œnothera missouriensis

The Ozark Evening Primrose, or Sundrops, is a leafy perennial about 10 inches high, producing very large, clear yellow flowers from June until August. It makes a handsome specimen in a dry place in the rock-garden and is good in the border.

Œnothera speciosa

A graceful plant with wiry, 18-inch stems from which come beautiful open saucers, pure white and of satiny texture. Blooming in August and September, it is a valuable plant. Try it with *Dianthus latifolius atrococcineus* for a bosom companion.

Œnothera youngi

Sundrops make a useful edging for tall border plants or shrubs. When out of bloom, the plant is a mere rosette of bronzy foliage on the ground, but in June and July it sends up a 2-foot stem crowned with brilliant yellow flowers which open only in sunshine. Very showy and attractive.

PACHYSANDRA terminalis. See among Evergreen Shrubs.

PÆONIA

Few plants are more attractive or more easily grown than the well-known, popular Peonies. They make clumps of excellent foliage 2½ to 3½ feet high and, during May and June, produce enormous, showy flowers in shades of pink, red, and white. They are very permanent and remain in good condition for many years.

Baroness Schroeder. Very large, exquisitely shaped, symmetrical blooms of pale flesh-pink changing to white.

Edulis Superba. One of the earliest to bloom. Brilliant rose-pink.

Eugène Verdier. A midseason variety producing enormous, handsome flowers of pale rose-pink.

Festiva Maxima. The well-known, early popular white variety, producing enormous flowers flecked with crimson in the center.

Mons. Jules Elie. Enormous, silvery pink flowers of handsome, incurved form.

PAPAVER

Papaver alpinum

A jolly little miniature Iceland Poppy 2 to 4 inches high with similar crinkled fairy flowers in a delightful range of colors. Fine for any good choice places in the rock-garden, stone steps, and makes a sweet little spot-plant for dotting in between *Thymus* or other low creepers.

Papaver nudicaule

The Iceland Poppy is a delicately lovely thing. It has thin, bright green foliage in a broad tuft above which silky flowers of white, orange, and yellow sway on incredibly slender stems 18 inches high.

Papaver orientale

The splendor of the Oriental Poppies defies description. After blooming, the plants gradually die down and disappear, but they make rosettes of foliage late in the fall which stay green over winter. They are very permanent plants, sometimes a little difficult to establish, but almost impossible to eradicate when they have once adopted a place.

Beauty of Livermere. The enormous flowers are sometimes nearly a foot across, with gorgeous dark blood-red petals. 4 feet.

Mrs. Perry. Medium-sized flowers, 6 inches or more in diameter, of soft orange, tinged with salmon-pink. 3 feet.

Olympia. This variety is also known as *May Queen*. It has ruffled, 4-inch flowers of semi-double form and hard, blazing scarlet-orange color. Unique among Oriental Poppies and very early.

Perry's White. About the same as *Mrs. Perry* in habit and size of flower, but the petals are pure, glistening white with a bold crimson spot at the base.

Papaver orientale, continued

Princess Victoria Louise. Less than 6 inches in diameter, the flowers are shaped remarkably like enormous tulips. The soft salmon-pink petals are stamped with a conspicuous blotch from which fine, thread-like lines extend nearly to the edge. 3 feet.

PENTSTEMON

Pentstemon barbatus, Pink Beauty

From a mass of leathery, dark green foliage, 3 and 4-foot stems ascend, with brilliant rose-pink, tubular flowers set at right angles throughout 2 feet or more of their length. A superb cutting flower when mixed with *Delphinium belladonna*.

Pentstemon barbatus torreyi

Torrey's Pentstemon has wiry stems 3 to 4 feet tall, with blazing red fire-crackers all the way up. A most showy plant, but requires plenty of space to sprawl, or careful staking for garden effect.

Pentstemon glaber roseus

This is a pink-flowering Pentstemon, 1½ to 2 feet high, having attractive shiny foliage. It really should be kept in the border.

Pentstemon hirsutus pygmaeus

Beard Tongue is a very dwarf variety with sticky leaves and violet flowers heavily bearded inside. It can be used in the rock-garden or border.

PHLOX

Phlox arendsi, Hilda

The *Arendsi* Phlox are hybrids between the large border Phlox and the small lavender-blue *Pblox divaricata*. They have the advantage of flowering in between. Lavender-blue flowers with lilac eyes.

Phlox arendsi, Louise

The 18-inch plants have light lilac flowers and deep carmine eyes.

Phlox divaricata

A popular native for the rock-garden or border, also known as *Phlox canadensis*. It forms large clumps of deep green, leathery foliage, the spreading shoots rooting as they go. The luminous lavender-blue flowers are borne in great profusion in May and June on foot-high stems. It is often used in association with pink or yellow tulips for bedding.

Phlox ovata

A 2-foot, leafy plant, the Mountain Pink has purplish pink flowers nearly an inch across in small clusters in midsummer.

Phlox subulata

The Moss Pink, is one of the showiest ground-cover plants in existence. Its moss-like foliage, in wide, rapidly spreading mats, is completely buried in early spring under a continuous layer of brilliant pink flowers an inch across. A superb thing for enormous rock-gardens or for covering waste, sunny ground and dry banks.

Alba. White Moss Pinks are very beautiful and chaste, and the plant is not so outrageously vigorous.

Apple Blossom. A choice form with flowers of pure shell-pink. This is an excellent variety for the rock-garden because of its somewhat restricted growth.

Brittoni. This is a dwarf, slow-growing Mountain Pink which is found in the states of Virginia and North Carolina. It is similar in habit to Phlox Vivid, and has white flowers, spotted pink at the base.

Fairy. Pale blue or light lavender form, much like the variety known as Vivid, but more delicately tinted. This variety often produces a second crop of flowers in September.

Phlox subulata, continued

G. F. Wilson. Finest and bluest of the moss Phloxes. The flowers are large and a good clear lavender-blue.

Vivid. This is not a true *subulata* but, without a doubt, it is the best dwarf pink Phlox for the rock-garden. Its foliage is deep green and the whole plant more compact than the other *subulatas*. The flowers are large and clear rose-pink.

Phlox decussata

The garden Phlox is one of the chief perennials of the summer garden. Its blooms are borne in heads of varying size, seldom less than 6 inches high, on stems from 3 to 4 feet tall, from July until September. We offer a collection of brightly colored varieties selected for their vigor and free-flowering qualities.

Attraction. A new salmon-pink variety. Most attractive.

B. Comte. The darkest red Phlox in cultivation, with large heads of flowers.

Border Gem. This is a distinct novelty with heads of deep violet-blue.

Brilliant. A fine scarlet variety with deeper eye.

Caroline Vandenberg. The bluest of all the border Phlox.

Coquelicot. Orange-scarlet flowers with purple eyes, in enormous heads.

Deutschland. Flowers are extra large and glowing orange-red.

Enchantress. Enormous heads of brilliant salmon-pink; darker red centers. A better grower than Elizabeth Campbell.

Fiancee. Giant clusters of milky white flowers on very strong plants.

Fireglow. An especially bright red variety with a strong undertone of orange.

Phlox decussata, continued

General Petain. A good new variety with deep port-wine-colored flowers.

Hindenburg. Brilliant cherry-red flowers with a darker eye.

Jules Sandeau. Dwarf, 18-inch plants. Large heads of soft pink bloom.

Mrs. Jenkins. An excellent white variety for massing. Blooms a long time.

Rheinlander. Giant flowers of clear salmon-pink with sparkling red centers.

Thor. A darker rose-pink variety with a rich salmon shading or glow.

Wanadis. Enormous clusters of lilac blossoms with deeper purple eyes.

Phlox suffruticosa, Miss Lingard

Dwarf. Conical heads of pure white. Very early.

PHYSALIS**Physalis francheti**

The Chinese Lantern Vine is a coarse perennial 2 to 4 feet high which rejoices in some shade. In the autumn the long stems are adorned with papery brilliant red bracts inclosing the seed-pods.

PHYSOSTEGIA**Physostegia virginiana**

False Dragonhead makes an excellent background plant. It is a weed for spreading and needs rigid control. The stems grow 5 to 8 feet high, with squarish spikes of frosty pink flowers.

Physostegia virginiana, Vivid

A very dwarf variety, seldom more than 2½ feet high, with enormous clusters of deep pink flowers in August and September.

PHYTEUMA**Phyteuma orbiculare**

This is the round-headed Horned Rampion. Lots of funny little purple flowers form a globular head on slender stalks a little over a foot in height for the rock-garden or sunny border.

PLATYCODON**Platycodon grandiflorum**

The Wide Bells or Balloon Flowers are leafy, wiry plants with stems 2 to 4 feet high, adorned with large, saucer-shaped flowers of metallic blue. An excellent successor to Canterbury Bells and very permanent.

Platycodon grandiflorum album

A very dainty, white-flowering Platycodon which greatly improves the planting if mixed with the blue variety.

PLUMBAGO**Plumbago larpentae**

One of the finest plants for the border and rock-garden is the Blue Leadwort, now harassed by the outrageous name of *Ceratostigma plumbaginoides*. The foliage appears very late in the spring, making a wiry tuft about a foot high and several feet in diameter, and the intensely blue flowers, with reddish bracts, come in August. It likes a hot, dry position, and dies down in autumn.

POLEMONIUM**Polemonium caeruleum**

Greek Valerian is a charming sky-blue flower on 15-inch stalks in June and July.

Polemonium humile

Jacob's Ladder is also called *Polemonium richardsoni*. Plants are about 1 foot high and have clustered blue flowers with white stamens in June and July.

POTENTILLA

Potentilla tridentata

Charming little rock-garden plant listed among Evergreen Shrubs on page 62.

Potentilla nepalensis

A clump of strawberry-like foliage from which 18-inch stems ascend, with clusters of bright pink flowers in May and June.

Potentilla nepalensis, Miss Willmott

An improved cherry-red variety of the above, raised in the garden of the noted English horticulturalist whose name it bears. Do not stake this beautiful Cinquefoil, but give it a position where it can ramp and flop to its heart's content.

PRIMULA

Primula acaulis

The charming and beloved Primrose of English woodlands, sometimes called *Primula vulgaris*—Primrose is prettier—is very well known. In early spring its bright yellow flowers peek out from a crinkled rosette of dark green leaves. It loves the woodland with its natural mulch of leaf-mold, but it is equally useful for the edging of shady borders.

Primula auricula

These are hybrids of the Alpine *auricula* and are not the richly green-eyed monsters which our fathers used for exhibition. Curious bears' ears of foliage furnish in May, and at odd times later, heads of fleshy flowers in various colors on 4 to 6-inch stems. Grow them in shady borders or on a high ledge facing west in the rock-garden in cool vegetable loam.

Primula cachemiriana

The Kashmir Primrose is really a variety of *Primula denticulata*. Its purplish blue flowers are borne on

fleshy stems, 10 inches to a foot high, above a rosette of coarse foliage. An excellent plant for moist sunny places.

Primula elatior

Oxlips produce their brightly colored flowers of many tints in clusters at the top of 8-inch stems which rise from a rosette of rough, dark green foliage.

Primula japonica

This is the stately Japanese Primrose, with tier upon tier of whorls of pink and red flowers, from rosettes of long, broad, crinkled foliage which dies down in winter. It requires its feet in cool, moist ground, and is especially desirable in the moist woodland.

Primula japonica, Red Hugh

A lovely crimson variety flowering, like the rest of this type, in late spring.

Primula polyanthus

Our giant Munstead Strain of Polyanthus is rich in delicate yellow and snow-white varieties of great charm which resemble highly developed Oxlips.

Primula pulverulenta, Bartley Strain

Hybrids of the deep crimson *pulverulenta* which often reach a height of more than 3 feet if suited beside some stream or in moist, cool soil. The habit is similar to that of *Primula japonica*, and the stems are covered with white meal or farina.

Primula veris duplex

The Double Cowslip makes a rosette of coarse green foliage bearing clusters of clear yellow flowers in hose-in-hose fashion, that is, one bloom protruding from another. This is a rare and choice variety much sought for.

PYRETHRUM

Pyrethrum hybridum

Painted Ladies are bright pink, crimson, and white daisies borne on 2-foot stems in May and June.



Primula japonica is an ideal plant for boggy places

RANUNCULUS

Ranunculus acris flore-pleno

The Double Buttercup is an old-fashioned garden denizen about 18 inches high, with tiny flowers like brilliant yellow, double roses in great abundance during May.

RUDBECKIA

Rudbeckia speciosa

Newmann's Black-eyed Susan, sometimes called *Rudbeckia newmanni*, is a coarse, straggling plant with large sprays of dazzling yellow daisies with brown centers borne in profusion in July and August. Excellent showy plant for landscape effect.

SALVIA

Salvia azurea grandiflora

The clear, sky-blue color of the Azure Sage is equaled only by *Delphinium belladonna*, a plant which it resembles somewhat when used in a mass in the back of a perennial border. Its slender, wiry stems grow 4 to 5

feet tall, tipped by spikes of delicate flowers during August and early September.

Salvia pratensis

Meadow Sage is a 3-foot perennial with heart-shaped leaves and bright blue flowers an inch across in long spikes. It blooms in June and July.

Salvia sclarea

The old-fashioned Clary is a coarse, aromatic plant with broad, wrinkled foliage and enormous spikes of large, more or less nondescript flowers of varying shades of pink and purple, occasionally, almost white. It is very useful for bold effects.

SANGUINARIA

Sanguinaria canadensis

The Bloodroot is a spring-flowering plant found growing wild in woodlands of northeastern America. The roots give off a red juice when cut or bruised. Its leaves are broad and palm-shaped, and the solitary flowers are white. Especially good for the woodland or wild garden. *Sanguinaria* is a near relative of the poppy.

SANTOLINA

Santolina incana

The proper name of the Lavender Cotton is *Santolina chamæcyparissus*. It is a small, rounded shrublet with gray, aromatic foliage bearing small yellow buttons in June and July. A very useful edging plant and may be used in the large rock-garden.

SAPONARIA

Saponaria ocymoides splendens

Rock Soapwort is a very leafy, broad-spreading plant studded all over with bright pink flowers in May and July. It is a rampant grower and spreads freely.

SAXIFRAGA

Saxifraga cordifolia

Belonging to the Magasea section of Saxifrage, this has large, fleshy leaves and handsome pink flowers in clusters at the top of thick stems. It enjoys a position near big rocks where it shows to best advantage.

Saxifraga macnabiana

Beautiful silver rosettes of leaves, edged with globules of lime, place this in the encrusted or Aizoon section of Saxifrage. This one is a hybrid and seems to stand our climate better than most of the group. Give it a high position, preferably in a vertical crevice where it will be shielded from the sun's hottest rays in midsummer, but where it will get all the spring, fall, and winter sun possible. It will enjoy any amount of lime. The graceful sprays of flowers are white, spotted with deep pink.

Saxifraga trifurcata ceratophylla

This is one of the many Mossy Saxifrages with finely divided, curly foliage and large, milky white flowers on delicate stems 6 to 8 inches high.

An excellent rock-garden plant for cool, partially shaded places. The Mossy Saxifrages are often difficult to establish in the humid heat of the eastern states, but we have found this one grows readily. Shade, if possible, during July and August.

SCABIOSA

Scabiosa caucasica

The Caucasian Scabious is a very popular perennial, especially for cut-flowers, consisting mostly of flower-stems 18 inches to 2 feet long, each tipped with a large, pale blue bloom several inches across.

Scabiosa caucasica hybrids

These elegant Scabious have a beautiful range of color and should prove most valuable as cut-flowers.

SEDUM

Have you ever grown the rock-garden Sedums in a medley, mixed in such a heterogeneous jumble as you would have in a Christmas pudding? They are grand! Of course, this applies more to the dwarf kinds. Find a nice stony pocket, narrow or broad, place your Sedums fairly close, going sparingly with the stronger growing ones, such as *reflexum*, forgetting *sarmentosum* altogether, and dotting *dasyphyllum* all over. Yes, an Alpine poppy or two could go in, and perhaps a small *Picea glauca conica* or similar slow-growing, upright conifer. You will be surprised at the result in one year, and will glowingly rush your visitors to it, when they will pause hardly long enough to take breath ere they dash away to start such a planting of their own. Please omit labels.

Sedum acre

This is the commonest of all Sedums, known under the names of Goldmoss, Wall Pepper, Stonecrop, and Love

Entangled. The tiny, fleshy foliage is brilliant green. During May and June it is covered with tiny yellow flowers in flat clusters on 3-inch stems. It spreads like wildfire, and is an excellent plant for covering large areas of dry, sunny banks, or planting in the crevices of pavements.

Sedum altissimum

A bold, thick-leaved, gray-green plant 1 foot high, with large heads of greenish yellow flowers in July.

Sedum anglicum

A neat, small Stonecrop which was first found in England, hence the name. Like a tiny *Sedum acre*, only its leaves seem to be angled, at first glance. Most useful for any place with a little soil; it takes root anywhere. The flowers are pinkish.

Sedum brevifolium

Similar to *dasyphyllum*, yet even prettier and quite distinct. A very rare species first distributed in the trade under the name of *edinensis*. The small stems are set with mealy beads which roll off with, or without, the slightest provocation and form baby plants; the stems also root as they creep. Flowers white and small.

Sedum dasyphyllum

One of the most charming and daintiest of the family. Its leaves are like tiny gray beads strung together in thick clusters and masses. The whole plant is scarcely more than 2 inches high.

Sedum kamtschaticum

A straggling, stringy plant with flat, bronzy green leaves and bearing large heads of brilliant orange flowers in midsummer.

Sedum lydium

Crowded bronzy or red and green fuzzy shoots sit together and form low, bright patches in high parts of the rock-garden. This is a fairly easy

species to grow, requiring gritty soil and maybe the slightest shade from midsummer sun.

Sedum middendorffianum

A dwarf *Sedum* which forms green little brushes of foliage and turns to a deep reddish color in winter. The flowers are yellow on 1½-inch stems.

Sedum nevi

Round, globular heads like tiny gray-green roses characterize this interesting little rock-plant. Flat clusters of white flowers ascend on 4-inch stems during June. This is a native of the southwestern states and should be seen much more in gardens.

Sedum oreganum

This unusual western native, also known as *Gormania oregana*, is like a greenhouse succulent but quite hardy. It has spoon-shaped, fleshy leaves, green when grown in partial shade and bronzy when in sun or in winter-time. The heads of brilliant golden yellow flowers are borne on brittle, waxy stems in June.

Sedum pruinaum

We have the true plant which seems to be very rare. It is the grayest of the *Sedums*, and has the interesting habit of drying up like little dead sticks with a little dead bud at the end. This often happens in midsummer, and later it will spring to life again, making little, succulent forests of waxy gray, cord-like leaves. The straw-colored flowers seem hardly necessary on this little beauty, but they are quite pretty. Find it a stony, sunny place in the rock-garden.

Sedum reflexum

One of the most vigorous of the family, this variety makes long, ropy stems like soft, limber branchlets of some diminished spruce. The yellow flowers are borne in flat heads during June.

Sedum rupestre

Somewhat like *Sedum reflexum*, but taller, with more erect stems, and the yellow flowers come in June.

Sedum sarmentosum

Tiny, flat, bright green leaves are strung on stringy stems which hug the ground closely. The bright yellow flowers are borne in flat clusters on stems 2 inches high. It is a very rampant plant and should not be allowed to enroach on choice things.

Sedum sexangulare

Very similar to *Sedum acre*, but darker green and the yellow flowers are of better color in June and July.

Sedum sieboldi

An exquisite pink-and-gray-leaved plant 6 to 8 inches high, with foliage of shell-like texture. The broad, flat heads of starry flowers are brilliant pink and are produced in September or October.

Sedum spathulifolium purpureum

Very fleshy or succulent wedge-shaped leaves of richest plum-purple, covered with a waxy gray meal. One of the very prettiest of rock-garden Sedums. The colors will deepen or lighten according to position. In full sun and starved soil, the best and richest colors are enjoyed. The flowers are golden yellow and attain a height of about 3 inches.

Sedum spectabile, Brilliant

This is a coarse, fat plant 2 feet high or more, with broad, fleshy gray leaves, and enormous heads of soft rose-pink flowers from July to September.

Sedum spurium

Makes broad mats of stringy foliage which clings tightly to the ground, covered in July and August with broad heads of pink flowers.

Sedum stoloniferum

Similar to *Sedum spurium*, only the leaves take on a deeper reddish tinge in autumn. Enjoys some shade.

Sedum ternatum

A dwarf, neat grower with squat rosettes and dinky white flowers, making it a good crevice plant. This is a native plant and grows well in shade.

SEMPERVIVUM

Sempervivum arachnoideum

This is the well-known Cobweb Houseleek, with small, tight rosettes held close by the silkiest of silver webs—to prevent undue evaporation from the blinding sun of the mountains. In time the plant will form quite a cluster of rosettes. A general favorite. It has bright crimson rayed flowers.

Sempervivum arenarium

The tiny "chicks" from the "Hen-and-Chickens," or "Sand Live-Forever," drop and root and grow. The "hen" itself is only a small green button rosette which takes on a deep brownish red tinge in autumn. The pale yellow flowers are borne on short stems.

Sempervivum fimbriatum

The Fringed Houseleek or Live-Forever makes regular rosettes of gray foliage an inch and a half across. Its bright red flowers are borne in an open panicle about 10 inches high.

Sempervivum globiferum

Fleshy, round globes of succulent green leaves give this the name of Globe Houseleek, and it is sometimes erroneously listed as *Sempervivum soboliferum*. From inside these globes come the tiniest knobs, on slender stalks, which open, showing that they are but infants of the parent plant. If it flowers, they should be yellow. The

name of this is doubtful as the *Sempervivum* family is in a hopeless muddle, and you are quite likely to get a different plant under the same name from any number of nurserymen, despite monographs and treatises.

Sempervivum pittoni

Neat but fairly large rosettes, delightfully woolly and gray, distinguish this species from *Syria*. The flowers are bright red, on stems about 6 inches high.

Sempervivum rubicundum

The name sounds red and so are the rosettes. Its leaves are pointed and in winter take on the jolliest of colors. A bright little plant bearing heaps of "chickens." Listed by some as *Sempervivum blandum*.

Sempervivum tectorum

The Old-World Houseleek, which is often seen on tiled roofs of old houses and barns, sometimes making patches a yard across. Its rosettes are large, grayish, about 3 to 4 inches across. The flowers are pale pink on 9-inch stems. Very easy of culture, delighting in dry, arid, sandy soil.

Sempervivum Hybrids

These are interesting little tufts of foliage, each one roughly shaped like a miniature cabbage. They are highly desirable for stuffing in crevices in the rock-garden, and some like them used as an edging to low borders. They are happy in the driest part of the garden.

SCUTELLARIA

Scutellaria baicalensis coelestina

The Skull-cap is like a little Pentstemon with tiny blue flowers on slender, 1-foot stems and seeds similar to small "honesty money." A really good plant for dry situations.

SPIRÆA aruncus. See *Aruncus sylvester*.

SIDALCEA

Sidalcea malvaeflora, Rosy Gem

Slender, 2-foot plants with bright, satiny flowers like tiny hollyhocks in June and July.

SILENE

Silene acaulis

A true alpine coming from the Swiss Alps and found on a few of the highest mountains in Britain. Tight cushions are formed of tiny rosettes, and small pink flowers sit tight upon the cushion. Some difficulty is often experienced in getting this lover of high places to flower in the lowlands. Our stock is the loosest growing type, which has more chance of flowering. The plant is ever attractive, and should be given a high position wedged between rocks in gritty, calcareous soil.

Silene alpestris

Flat little cushions of mossy foliage starred through most of the summer with fringy white flowers on 5-inch stems. An excellent rock-garden plant for cool, partially shaded places.

Silene maritima flore-pleno

The double Sea Campion makes a gray mat of foliage a foot across and 6 inches high, with double white flowers produced through most of the summer on short, floppy stems. An excellent rock-garden plant for a dry, sunny place. It is a curious monstrosity which some people like.

Silene schafta

This little Catchfly is rose-pink—really magenta—but do not let that deter you from growing it. It blooms well through late summer, when there are really few colors in the rock-garden that it can clash with—unless it be *Verbena canadensis*. Pale green foliage with loose clusters on 3 to 4-inch stems. It makes a useful wall-plant.

STACHYS

Stachys lanata

A soft, white, woolly plant with broad velvety leaves which give it the common name of Lambs' Ears. The main stem will grow 1½ feet high, with purple flowers of no particular beauty and are best cut off. The foliage is very handsome.

STATICE

Statice armeria

These are the Sea Pinks or Thrifts which inhabit the rocks on seacoasts of England and the high mountains of Europe. They may be seen in many old cottage gardens, lining a walk to the honeysuckle-covered door. In the rock-garden they make the best display when planted in broad drifts. They seem to flower continuously throughout summer.

Statice armeria alba

This is sometimes called *Statice maritima alba*. It makes a mat of grassy leaves with dull white flowers in round heads on 6-inch stems.

Statice armeria lauchearia

A pretty form of the Common Thrift which makes a grassy sod above which bright crimson flowers in round heads are borne on slender, unbranched stems.

Statice armeria splendens

Another variety sometimes called *Statice maritima splendens*, with rosy pink flowers.

Statice armeria, Six Hills Hybrid

This is a hybrid Thrift raised by Mr. Clarence Elliott, the great English authority on alpine. Tufty little cushions are formed by sharply, pointed leaves, and the delicate pink flowers rise for 6 inches or so above.

Statice latifolia

See *Limonium latifolium*.

Statice pseudo-armeria rubra

Sometimes this species is called *Statice armeria cephalotes rubra*. It differs from the others in having coarser foliage and taller stems. The flowers are reddish pink. A splendid flower for cutting.

STOKESIA

Stokesia laevis

Stoke's Aster, also known as *Stokesia cyanea*, looks a good bit like *Scabiosa caucasica*, with the same 2-foot stems and flat lilac-blue flowers in July and August.

Stokesia laevis alba

A very pretty milk-white bloom; otherwise just the same as the blue one.

TEUCRIUM

Teucrium chamaedrys

A tiny, erect shrublet with glossy dark green leaves and pinkish lilac flowers in August and September. Grows 12 to 18 inches high. Very picturesque.

THALICTRUM

Thalictrum aquilegifolium

This beautiful plant has broad, spreading foliage much like that of some dainty columbine. The branching stems are 2 to 3 feet high, with fringing, purplish pink flowers in June and July.

Thalictrum dipterocarpum

This rare and handsome Meadow-rue comes from the province of Yunnan in China. Its fluffy, pale violet flowers, with buff anthers, swing on graceful, arching 4-foot stems, and sometimes 6-foot, during August and September. This plant is charming when planted in lily-beds. The cool shade at the base of stem which is necessary to most lilies suits the *Thalictrum*. Its foliage is light and feathery.

Thalictrum glaucum

The Dusty Meadow-rue makes a broad mass of gray-green foliage surmounted in July with 3- or 4-foot stems bearing a mist of yellowish white flowers. Try this as a cut-flower with the biennial *Cynoglossum amabile*.

THYMUS

The creeping Thymes are invaluable rock-garden plants. They are most useful in forming the main groundwork of the alpine lawn or planting between paving-stones. An occasional treading on does not hurt them.

Thymus citriodorus argenteus

A beautiful and deliciously fragrant form of the Lemon Thyme, which is used for seasoning. The flowers are pale lilac and insignificant, while the foliage is pleasantly variegated with silver. It is a low-spreading plant which makes a fine silver draping for large rocks. Give it a cutting-over once a year, as young shoots are best.

Thymus citriodorus aureus

A golden version of the last, requiring the same treatment, and just as nice in turkey.

Thymus serpyllum coccineus

Mother of Thyme is a low, creeping, aromatic mat of purplish green foliage covered at one time or another during the summer with tiny light red flowers.

Thymus serpyllum albus

The White Thyme is exactly like the common Mother of Thyme except that the flowers are pure white and the foliage brilliant green. It is the loveliest of all Thymes for rock-garden use.

Thymus serpyllum lanuginosus

The loveliest Creeping Thyme. Unlike the other *serpyllum*, this makes sheets of silver wooliness that hug soil and rock like a fairy silver carpet.

A very ornamental plant most worthy of cultivation as it is pleasing at any time of the year. It makes an excellent groundwork for the dwarf rock-garden conifers.

TRITOMA. See *Kniphofia*.

TROLLIUS

The glorious Globe Flowers of the low alpine meadows like a deep, rich soil in gardens. They are excellent subjects for planting near streams. Closely related to the buttercup, they have similar, deeply cut foliage.

Trollius europaeus

Delights in moist soil. The sepals are overlapped, like a dome-shaped roof. It seems a mystery how insects can get to the large supplies of nectar within the apparently closed globe. The flowers are fertilized, however, by tiny insects which slide between the sepals.

Trollius, Orange Globe

Reaches 2 feet under good conditions, and has extra-large orange globes, as the name suggests.

TUNICA**Tunica saxifraga**

A charming little mat-forming plant for the rock-garden or edge of the border. The tiny flowers are pale watery pink, borne on thread-like stems which are similar to a very small *Dianthus*. It blooms from July until September.

VALERIANA**Valeriana officinalis rubra**

This old-fashioned flower is commonly called Valerian or Garden Heliotrope. The feathery foliage is clustered against the ground, while in June and July 3 to 4-foot stems arise bearing clusters of delicately scented crimson flowers.

VERBENA

Verbena canadensis

A beautiful, hardy edition of the popular half-hardy bedding plant. Given a sunny place and good soil, it will wax fat and produce its pinkish purple flower-heads from May until September, and even October, if frost allows. A first-rate plant with spreading, leafy stems which root as they run. Its flowers are seen to best effect if tumbling through and over *Santolina incana*, or some similar plant.

VERONICA

Veronica armeria

A delightful evergreen Veronica, a sister to *Veronica linifolia* or *Veronica filifolia*, having deeply cut leaves on floppy stems, and lovely true blue flowers coming from the axils of the leaves. This is of recent introduction and is proving to be a popular rock-plant.

Veronica filiformis

This is a rampant treasure for a cool corner. The daintiest china-blue bird's-eyes are seen in late spring nestling close on wiry stems above a solid sheet of pale green. It is commonly known as Speedwell in England.

Veronica gentianoides

A border plant sometimes reaching 2 feet high, with spikes of large, pale blue flowers. We have a true dwarf type which seldom reaches more than 8 inches.

Veronica incana

The Woolly Speedwell is a border or rock-garden plant 1 foot high, with spikes of brilliant blue flowers which go so well with its lovely silver foliage.

Veronica longifolia subsessilis

August brings the long spikes of brilliant violet-blue flowers of the Clump Speedwell which makes a

shrubby plant 2½ to 3 feet high and is one of the finest ornamentals of the perennial border.

Veronica pectinata

A prostrate carpet of gray, woolly, and crinkled foliage with small blue stars in June. This plant is rapidly becoming popular in American rock-gardens.

Veronica pectinata rosea

With the same disposition and habit as the last, this equally lovely plant has rose flowers. They both hail from Asia Minor.

Veronica repens

Its very name seems to run! And it is one of the finest wee cover plants in existence for bare patches in the rock-garden. This is one of the smallest of Veronicas. Its little leaves lie flat on the ground, and in May and early June it bursts into a cloud of blue. With age, the flowers fade white.

Veronica teucrium rupestris

A splendid, all-round plant for rock-garden, broder, or wall. Forms spreading mats which drape the large rocks or wall with green, and in May and June with sapphire.

Veronica teucrium rupestris nana

A glorious little Speedwell. This dwarf, huddled form of *Veronica teucrium rupestris* has flattened shoots and brilliant blue flowers. If anything, it is more floriferous than the type. This is a really choice and easily grown rock-plant.

Veronica teucrium rupestris rosea

An interesting pinkish variety valuable for its color variation.

Veronica teucrium, Royal Blue

This is a handsome border perennial 18 inches high, with stiff, erect spikes with darker royal blue flowers during June and July.

Veronica trehani

The favorite color combination of yellow or golden and blue is here represented on one plant. Throughout the year we have the attractive golden yellow foliage and in May and June the blue flowers. The habit of this plant is the same as *Veronica teucrium rupestris*.

Vinca minor. See page 68.

VIOLA**Viola bosniaca**

A dwarf green *Viola* whose name is derived from its country of origin. The pretty small pink faces only rise 3 inches and are produced abundantly. Divide every year to keep growing well, and find a cool, semi-shaded place in rock-garden or border.

Viola cornuta, G. Wermig

A charming edging plant with tiny, clear blue flowers borne in great abundance in May and June.

Viola cornuta, Jersey Gem

The finest of all *Violas*, producing an abundance of brilliant violet-blue flowers from May until August.

Viola cornuta, Purple Queen

A large-flowered type with brilliant royal purple flowers of velvety texture.

Viola gracilis

Often known as the Graceful Violet, this is a pretty little plant from Greece, with extra-long spurs and attractive little angled violet flowers. This should be more for the rock-garden than the border.

Viola pedata

The Bird's-Foot Violet is a wild-flower of the Appalachians. The foliage is divided and the clear lavender-lilac flowers are very lovely and dainty, produced in April and May. It wants a partially shaded, well-drained place in a sour-soil rockery.

Yucca filamentosa. See page 68.



Perennials in an informal border blending the cropped lawn with the surrounding shrubs and trees

PLANTS FOR SPECIAL LOCATIONS

Plants Suitable for the Rock-Garden

Evergreens

Arctostaphylos uva-ursi, 5"-6"
Azalea amœna, 2½'-3'
Azalea hinodegiri, 3'-4'
Berberis verruculosa, 3'-4'
Calluna vulgaris, 1'-2'
Chamæcyparis obtusa grac. com., 4'-5'
Chamæcyparis obtusa nana, 2'
Chamæcyparis pisifera filifera nana, 1½'
Chamæcyparis pisifera plumosa nana, 2½'
Chamæcyparis pisifera squarrosa nana, 1½'
Cotoneaster adpressa, 1'
Cotoneaster horizontalis, 1½'-2'
Cotoneaster microphylla, 2'-2½'
Cotoneaster perpusilla, 1½'-2'
Cotoneaster thymifolia, 1½'-2'
Daphne cneorum, 1'
Epigaea repens, 6"
Euonymus radicans minimus, 2'-3'
Gaultheria procumbens
Juniperus chinensis sargentii, 1½'
Juniperus communis cracovica, 4'-5'
Juniperus communis montana, 1½'
Juniperus communis suecica nana, 3½'
Juniperus horizontalis, 1'-1½'
Juniperus horizontalis douglasii, 1'-1½'
Juniperus horizontalis plumosa, 2'
Juniperus horizontalis, Bar Harbor, 1'
Juniperus sabina tamariscifolia, 1½'
Juniperus squamata, 1'
Juniperus squamata meyeri, 3'-4'
Juniperus squamata variegata, 1'
Leiophyllum buxifolium, 1½'
Mitchella repens, 4"
Pachistima canbyi, 3"-4"
Picea excelsa clanbrasiliana, 4'-5'
Picea excelsa conica, 6'-7'
Picea excelsa maxwellii, 1'-2'
Picea excelsa procumbens, 1½'-2'
Picea excelsa repens, 1'
Picea glauca conica, 3'
Pinus densiflora umbraculif., 3'-4'
Pinus montana mughus, 2½'-3'
Potentilla tridentata, 8"
Taxus baccata compacta, 3'-4'
Taxus baccata erecta, 3'-5'
Taxus baccata repandens, 1½'-2'
Taxus canadensis, 2'-2½'
Taxus cuspidata nana, 2'-3'
Thuja occidentalis, Little Gem, 2'
Thuja occidentalis pumila, 2'-2½'
Thuja occidentalis umbraculif., 2'-3'
Thuja orientalis aurea nana, 2½'-3'
Thuja orientalis compacta, 3'-4'
Vaccinium vitis-idaea, 6"

Deciduous Shrubs

Caryopteris incana, 2'-3'
Deutzia gracilis, 3'
Genista pilosa, 3'
Hypericum buckleyi, 1'
Hypericum moserianum, 2'
Jasminum nudiflorum, 3'
Lonicera spinosa alberti, 2'
Lonicera thibetica, 3'-4'
Potentilla fruticosa, 3'-4'
Viburnum opulus nanum, 1½'-2'

Herbaceous Perennials

Acæna microphylla, 2"
Achillea lewisi, 6"
Achillea tomentosa, 9"
Æthionema coridifolium, 6"
Æthionema grandiflorum, 1½'
Æthionema persicum, 6"
Ajuga genevensis, 1'
Ajuga reptans, 6"
Allium pedemontanum, 9"
Allium sp., Thibet, 9"
Alyssum montanum, 3"
Alyssum rostratum, 6"
Alyssum saxatile compactum, 1'
Alyssum spinosum, 6"
Androsace lactiflora, 4"
Androsace lanuginosa, 6"
Androsace sarmentosa chumbyi, 3"
Anemone hupehensis, 1½'
Anemone pulsatilla, 1'
Anemone pulsatilla alba, 1'
Anemone pulsatilla rubra, 1'
Anemone sylvestris, 9"
Anemone vernalis, 3"
Antennaria dioica, 6"
Anthemis styriaca, 4"
Aquilegia alpina, 1'
Aquilegia ecalcarata, 1'
Aquilegia flabellata nana alba, 9"
Aquilegia glandulosa, 15"
Aquilegia pyrenaica, 6"
Arabis alba, 6"
Arabis alba flore-plena, 7"
Arabis alba nana compacta, 4"
Arabis alpina
Arabis alpina rosea
Arabis kelleri, 3"
Arenaria montana, 4"
Arenaria purpurea cens, 2"
Arenaria verna caespitosa, 1"
Artemisia frigida, 4"
Aster alpinus, 8"
Aster alpinus albus, 8"

Plants Suitable for the Rock-Garden, continued

- Aster subcæruleus, 1'
 Aster yunnanensis, 9"
 Aubrietia in variety, 6"
 Bellis rotundifolia cærulescens, 4"
 Bellis sylvestris, 6"
 Calamintha alpina, 6"
 Campanula barbata, 8"
 Campanula carpatica, 6"
 Campanula carpatica alba, 6"
 Campanula garganica, 3"
 Campanula portenschlagiana, 3"
 Campanula pusilla, 3"
 Campanula rotundifolia, 1'
 Carlina acaulis, 6"
 Cerastium tomentosum, 6"
 Dianthus alpinus, 3"
 Dianthus arenarius, 6"
 Dianthus cæsius, 6"
 Dianthus deltoides, 8"
 Dianthus glacialis, 4"
 Dianthus neglectus, 4"
 Dicentra formosa, 1'
 Draba bruniifolia, 2"
 Draba fladnizensis, 4"
 Dracocephalum ruyschiana, 1'
 Erigeron aurantiacus, 6"
 Erinus alpinus, 4"
 Erysimum linifolium, 6"
 Erysimum pulchellum, 3"
 Euonymus radicans kewensis, 1"
 Festuca glauca, 1'
 Gentiana, Purdomi, 9"
 Gentiana septemfida, 9"
 Geranium sanguineum, 9"
 Geranium sanguineum album, 9"
 Geranium sanguineum lancastriense, 4"
 Geum borisi, 1'
 Globularia trichosanthes, 6"
 Gypsophila cerastioides, 3"
 Gypsophila repens, 4"
 Helianthemum in variety, 8"
 Hepatica acutiloba, 4"
 Heuchera in variety, 1½'
 Hosta plantaginea minor, 10"
 Houstonia cærulea, 4"
 Hypericum coris, 9"
 Hypericum repens, 6"
 Hypericum reptans, 2"
 Iberis gibraltarica, 8"
 Iberis sempervirens, 10"
 Iberis sempervirens, Little Gem, 6"
 Iberis sempervirens, Snowflake, 9"
 Inula ensifolia, 9"
 Iris cristata, 4"
 Iris forrestii, 1½'
 Iris pumila in variety, 8"
 Jasione humilis, 9"
 Lavandula vera, Munstead, 1'
 Leontopodium alpinum, 6"
 Linum flavum, 9"
 Linum narbonneense, 1½'
 Linum perenne, 1'
 Linum perenne album
 Lithospermum prostratum, 6"
 Lychnis alpina, 4"
 Mazus rugosus, 4"
 Menthella requieni, ½"
 Myosotis scorpioides, 10"
 Nepeta mussini, 10"
 Nierembergia rivularis, 2"
 Oenothera missouriensis, 10"
 Oenothera speciosa, 1½'
 Papaver alpinum, 4"
 Pentstemon hirsutus pygmæus, 9"
 Phlox amœna, 4"
 Phlox divaricata, 1'
 Phlox ovata
 Phlox subulata in variety, 4"-6"
 Phyteuma orbiculare, 1'
 Plumbago larpente, 9"
 Polemonium humile, 1'
 Potentilla nepalensis, Miss Willmott, 1½'
 Potentilla nepalensis tridentata
 Primula acaulis, 3"
 Primula auricula, 6"
 Primula cachemiriana, 9"
 Santolina incana, 1'
 Saponaria ocyroides splendens, 1'
 Saxifraga cordifolia, 1½'
 Saxifraga macnabiana, 9"
 Saxifraga trifurcata ceratophylla, 6"
 Sedum acre, 3"
 Sedum altissimum, 1'
 Sedum anglicum, 3"
 Sedum brevifolium, 2"
 Sedum dasyphyllum, 2"
 Sedum kamtschaticum, 8"
 Sedum lydium, 3"
 Sedum middendorffianum, 2"
 Sedum nevi, 4"
 Sedum oreganum, 4"
 Sedum pruinaum, 4"
 Sedum reflexum, 6"
 Sedum rupestre, 8"
 Sedum sarmentosum, 3"
 Sedum sexangulare, 3"
 Sedum sieboldi, 6"-8"
 Sedum spathulifolium purpureum, 3"
 Sedum spurium, 6"
 Sedum stoloniferum, 6"
 Sedum ternatum, 3"
 Sempervivum in variety, 4"-9"
 Silene acaulis, 2"
 Silene alpestris, 5"
 Silene maritima fl.-pl., 6"
 Silene schafta, 6"
 Statice armeria in variety
 Statice armeria, Six Hills Hybrid, 6"
 Teucrium chamædrys, 1½'
 Thymus citriodorus argenteus, 4"

Plants Suitable for the Rock-Garden, continued

Thymus citriodorus aureus, 4"	Veronica repens, 2"
Thymus serpyllum in variety, 2"	Veronica teucrium rupestris, 4"
Tunica saxifraga, 6"	Veronica teucrium rupestris nana, 1"
Verbena canadensis, 6"	Veronica teucrium rupestris rosea, 4"
Veronica armeria, 4"	Veronica trehane, 4"
Veronica filiformis, 2"	Viola bosniaca, 4"
Veronica gentianoides, 8"	Viola cornuta, Jersey Gem, 6"
Veronica incana, 1'	Viola cornuta, Purple Queen, 6"
Veronica pectinata, 3"	Viola gracilis, 5"
Veronica pectinata rosea, 3"	Viola pedata, 4"

Plants for Shaded Situations

Deciduous Trees and Small Shrubs

Acanthopanax pentaphyllum, 7'-8'	Ilex glabra, 5'-6'
Amelanchier canadensis, 12'-15'	Ilex opaca, 25'-30'
Aronia arbutifolia, 6'-8'	Juniperus communis, 2½'-3'
Aronia melanocarpa, 8'-10'	Kalmia latifolia, 5'-7'
Azalea arborescens, 10'-12'	Leucothoe catesbaei, 3'-4'
Azalea nudiflora, 6'-8'	Mahonia aquifolium, 4'-5'
Azalea vaseyi, 5'-6'	Pachysandra terminalis, 6'-8'
Azalea viscosa, 4'-5'	Pieris floribunda, 3'-4'
Benzoin æstivale, 10'-12'	Pieris japonica, 4'-5'
Calycanthus floridus, 4'-5'	Rhododendron catawbiense, 6'-9'
Cephalanthus occidentalis, 5'-6'	Rhododendron catawbiense hybrids, 3'-8'
Cercis canadensis, 12'-15'	Rhododendron maximum, 8'-12'
Chionanthus virginica, 15'-18'	Taxus canadensis, 2'-2½'
Clethra alnifolia, 4'-5'	Taxus cuspidata, 4'-5'
Cornus alternifolia, 15'-18'	Tsuga canadensis, 75'-90'
Cornus amomum, 8'-9'	
Cornus florida, 15'-25'	
Cornus florida rubra, 15'-20'	
Cornus mas	
Halesia tetraptera, 12'-15'	
Hamamelis mollis	
Hamamelis vernalis	
Hamamelis virginiana	
Hydrangea arborescens grandiflora, 4'-5'	
Hydrangea quercifolia, 3'-4'	
Hypericum aureum, 3'-4'	
Ligustrum ibota regelianum, 5'-6'	
Lonicera fragrantissima, 6'-8'	
Lonicera morrowi, 7'-8'	
Lonicera tatarica, 9'-10'	
Oxydendrum arborescens, 25'-30'	
Philadelphus, 9'-10'	
Rhodotypos kerrioides, 4'-5'	
Symphoricarpos racemosus, 5'-6'	
Symphoricarpos vulgaris, 4'-5'	
Viburnum acerifolium, 4'-5'	
Viburnum dentatum, 10'-12'	
Viburnum lentago, 18'-20'	
Viburnum molle, 10'-12'	

Evergreens

Azalea amœna, 2½'-3'	
Azalea hinodegiri, 3'-4'	
Buxus sempervirens suffruticosa, 12'-15'	
Ilex crenata microphylla, 6'-8'	
	Aconitum (all)
	Ajuga genevensis
	Ajuga reptans
	Anemone japonica
	Anemone sylvestris
	Aquilegia
	Asarum shuttleworthi
	Cimicifuga
	Convallaria majalis
	Dicentra formosa
	Dicentra spectabilis
	Digitalis
	Epigaea repens
	Eupatorium fraseri
	Gaultheria procumbens
	Hepatica
	Heuchera (all)
	Hosta (all)
	Iberis sempervirens
	Lithospermum prostratum
	Lobelia cardinalis
	Lobelia siphilitica
	Lychnis chalcidonica
	Lythrum
	Meconopsis
	Menthella requienii
	Mitchella repens
	Myosotis scorpioides
	Physalis

Plants for Shaded Situations, continued

Platycodon grandiflorum
Polemonium
Primula (all listed)
Saxifraga trifurcata ceratophylla
Sedum kamschaticum
Sedum oreganum

Sedum sarmentosum
Sedum spurium
Sedum ternatum
Thalictrum
Vinca minor
Viola

Plants for Binding and Covering Soil on Steep Banks

Shrubs

Acanthopanax pentaphyllum, 7'-8'
Berberis thunbergi, 4'-5'
Lonicera spinosa alberti
Lonicera tatarica, 9'-10'
Myrica carolinensis, 4'-5'
Rhus canadensis, 4'-5'
Rosa nitida, 6"-24"
Rosa rugosa, 4'-5'
Rosa setigera, 5'-6'

Symphoricarpos racemosus, 5'-6'
Symphoricarpos vulgaris, 4'-5'

Vines

Celastrus scandens, 20'-25'
Lonicera japonica halliana, 15'-20'
Rosa lucida, 5'-6'
Rosa setigera
Rosa wichuraiana

Plants for Dry Soil

Trees

DECIDUOUS

Betula populifolia, 30'-40'
Phellodendron amurense, 40'-50'
Quercus alba

EVERGREEN

Juniperus virginiana
Pinus resinosa, 50'-60'
Pinus strobus, 80'-100'
Pinus sylvestris

Shrubs

DECIDUOUS

Acanthopanax pentaphyllum, 7'-8'
Colutea arborescens, 8'-10'
Cornus paniculata, 10'-12'
Hypericum prolificum, 2½'-3'
Lespedeza formosa, 5'-6'
Myrica carolinensis, 4'-5'
Prunus maritima, 9'-10'
Rhamnus cathartica, 9'-10'
Rhus canadensis, 4'-5'
Rosa setigera, 5'-6'
Symphoricarpos racemosus, 5'-6'
Symphoricarpos vulgaris, 4'-5'
Vaccinium corymbosum, 5'-6'
Viburnum acerifolium, 4'-5'
Viburnum lantana, 15'-18'

EVERGREEN

Arctostaphylos uva-ursi
Juniperus chinensis sargentii
Juniperus communis, 2'-2½'
Juniperus communis depressa, 1½'
Juniperus communis montana, 1½'
Juniperus horizontalis, 1'-1½'
Juniperus sabina, 6'-7'

Mahonia aquifolium, 4'-5'
Pachysandra terminalis, 8"
Pinus montana mughus, 2½'-3'

Herbaceous Perennials

SUNNY PLACES

Achillea ptarmica, The Pearl
Achillea tomentosa
Anthemis tinctoria
Armeria
Asclepias tuberosa
Baptisia australis
Cerastium tomentosum
Dianthus barbatus
Euphorbia corollata
Gypsophila paniculata
Helianthemum
Helianthus
Lavandula vera
Linum perenne
Lupinus polyphyllus
Oenothera youngii
Pentstemon barbatus
Phlox subulata
Sedum
Sempervivum

SHADY PLACES

Ajuga genevensis
Aquilegia canadensis
Aquilegia chrysantha
Aster alpinus
Heuchera sanguinea
Iberis sempervirens
Liatris pycnostachya
Platycodon grandiflorum
Sedum spectabile

Plants for Wet or Marshy Places

Deciduous Trees

Acer rubrum, 50'-75'
Betula nigra, 50'-60'
Larix leptolepis, 50'-60'
Liquidambar styraciflua, 50'-60'
Quercus palustris, 75'-90'
Quercus phellos, 75'-90'
Salix babylonica, 50'-60'
Taxodium distichum, 100'
Ulmus americana, 80'-100'

Shrubs

Aronia arbutifolia, 6'-8'
Aronia melanocarpa, 8'-10'
Azalea viscosa, 4'-5'
Benzoin æstivalie, 10'-12'
Calycanthus floridus, 4'-5'
Cephalanthus occidentalis, 4'-5'
Clethra alnifolia, 4'-5'
Cornus amomum, 8'-9'
Cornus stolonifera, 7'-8'
Ilex glabra, 5'-6'
Ilex verticillata, 6'-8'
Rhododendron canadense
Sorbaria sorbifolia
Viburnum cassinoides, 5'-6'
Viburnum dentatum, 10'-11'
Viburnum lentago, 18'-20'

Herbaceous Perennials

Aruncus sylvestris
Asclepias tuberosa
Aster novæ-angliæ
Boltonia latisquama
Caltha palustris
Cimicifuga racemosa
Helenium autumnale
Hemerocallis
Hibiscus moscheutos
Iris chrysographes
Iris forrestii
Iris kaempferi
Iris sibirica
Liatris spicata
Lobelia cardinalis
Lobelia siphilitica
Lythrum salicaria roseum
Myosotis scorpioides (palustris)
Physostegia virginiana
Primula cachemiriana
Primula japonica
Primula japonica, Red Hugh
Primula pulverulenta
Trollius europæus
Trollius, Orange Globe

Plants for Wall-Gardening

Achillea lewisii
Achillea tomentosa
Æthionema (all)
Alyssum (all listed)
Androsace chumbyi
Androsace lanuginosa
Antennaria dioica
Arabis in variety
Arenaria montana
Aubrietia in variety
Calamintha alpina
Campanula garganica
Campanula portenschlagiana
Campanula pusilla
Cerastium tomentosum
Cheiranthus allioni
Dianthus allwoodii
Dianthus arenarius
Dianthus arvensensis
Dianthus cæsius
Dianthus deltoides
Dianthus neglectus
Dianthus plumarius, and garden varieties
Dracocephalum
Erinus alpinus
Erysimum linifolium
Erysimum pulchellum

Geranium sanguineum and varieties
Gypsophila repens
Helianthemum in variety
Hypericum coris
Hypericum repens
Hypericum reptans
Leontopodium alpinum
Lithospermum prostratum, Heavenly Blue
Oenothera missouriensis
Oenothera speciosa
Phlox subulata and varieties
Plumbago larpentæ
Primula auricula (shady)
Saponaria ocymoides
Sedum (all except spectabile)
Sempervivum (all)
Silene alpestris
Silene maritima fl.-pl.
Silene schafta
Statice armeria
Teucrium chamædryas
Thymus (all)
Tunica saxifraga
Veronica pectinata
Veronica teucrium rupestris and varieties

Plants for Spaces Between Flagstone and Rock Walks

Achillea lewisi
Achillea tomentosa
Antennaria dioica
Arenaria verna caespitosa
Campanula pusilla
Erinus alpinus
Erysimum pulchellum
Euonymus radicans kewensis
Linaria pallida
Menthella requieni
Nierembergia rivularis
Phlox subulata varieties (for large steps)
Sedum acre
Sedum anglicum
Sedum brevifolium
Sedum dasyphyllum

Sedum hispanicum
Sedum lydium
Sedum middendorffianum
Sedum nevi
Sedum oreganum
Sedum pruinaum
Sedum sexangulare
Sedum spathulifolium purpureum
Sedum ternatum
Sempervivums (all)
Silene alpestris
Statice armeria
Thymus (all)
Tunica saxifraga
Veronica repens

Ground-Covers

For Shady Places

Ajuga reptans
Asarum shuttleworthii
Convallaria majalis
Epigaea repens
Euonymus radicans coloratus
Euonymus radicans minimus
Gaultheria procumbens
Hedera helix and varieties
Mitchella repens
Pachistima canbyi
Pachysandra terminalis
Shortia galacifolia
Taxus canadensis
Vaccinium vitis-idaea
Veronica filiformis
Veronica repens
Vinca minor

For Sunny Places

Arctostaphylos uva-ursi
Arenaria caespitosa
Calluna vulgaris and varieties
Helianthemum in variety
Juniperus chinensis sargentii
Juniperus communis depressa
Juniperus communis montana
Juniperus horizontalis, Blue Harbor
Juniperus horizontalis plumosa
Juniperus sabina tamariscifolia
Juniperus squamata
Leiophyllum buxifolium
Pachysandra terminalis
Phlox subulata
Sedums in variety
Thymus serpyllum
Veronica teucrium rupestris
Zanthorhiza auiifolia

Plants for Autumn Coloring

Trees

Acer ginnala, 12'-20'
Acer rubrum, 50'-75'
Acer saccharum, 50'-75'
Betula lutea, 90'-100'
Carpinus caroliniana, 25'-35'
Cercidiphyllum japonicum, 50'-80'
Cornus florida, 15'-25'
Crataegus cordata, 15'-25'
Halesia tetraptera
Liquidambar styraciflua, 50'-60'
Nyssa sylvatica, 40'-60'
Oxydendrum arboreum, 25'-30'
Quercus alba
Quercus coccinea
Quercus palustris, 75'-90'
Quercus rubra, 75'-90'

Shrubs

Aronia arbutifolia, 6'-8'
Aronia melanocarpa, 8'-10'
Berberis thunbergii, 4'-5'
Celastrus scandens
Cornus alternifolia, 15'-18'
Cornus paniculata, 10'-12'
Cotoneasters in variety
Euonymus alata, 9'-10'
Euonymus americanus, 7'-8'
Hydrangea quercifolia
Mahonia aquifolia
Rhus canadensis, 3'-4'
Rhus trilobata, 5'-6'
Vaccinium corymbosum, 5'-6'
Viburnum (all species)

Berry-Bearing Trees and Shrubs

Red Berries

Benzoin æstivale, 10'-12'
 Berberis thunbergi, 4'-5'
 Cornus florida, 15'-25'
 Cornus kousa
 Cornus mas
 Cotoneaster apiculata, 6'-7'
 Cotoneaster dielsiana, 6'-8'
 Cotoneaster divaricata, 6'-7'
 Cotoneaster francheti, 7'-8'
 Cotoneaster horizontalis, 1'-1½'
 Cotoneaster horizontalis perpusilla
 Cotoneaster hupehensis, 5'-6'
 Cotoneaster lemoinei
 Cotoneaster racemiflora soongarica, 5'-6'
 Cotoneaster rotundifolia, 7'-8'
 Cotoneaster salicifolia floccosa, 15'-16'
 Cotoneaster simonsi, 5'-6'
 Cratægus coccinea, 15'-20'
 Cratægus cordata, 12'-15'
 Cratægus crus-galli, 15'
 Elæagnus longipes, 6'-8'
 Elæagnus umbellata, 8'-10'
 Euonymus alatus, 9'-10'
 Euonymus europæus, 12'-14'
 Euonymus radicans vegetus
 Ilex opaca, 25'-30'
 Ilex verticillata, 6'-8'
 Lonicera korolkowi floribunda, 14'-15'
 Lonicera maacki, 8'-9'
 Lonicera minutiflora, 7'-9'
 Lonicera morrowi, 7'-8'
 Lonicera syringantha wolffii
 Lonicera tatarica, 9'-10'
 Malus floribunda, 12'-15'
 Photinia glabra, 7'-8'
 Photinia villosa, 10'
 Pyracantha coccinea lalandi, 8'-10'
 Rhus canadensis, 3'-5'
 Rhus trilobata, 5'-6'
 Rosa blanda, 4'-5'
 Rosa rubiginosa, 5'-6'
 Rosa rugosa, 4'-5'
 Sorbus aucuparia, 25'-30'
 Viburnum americanum, 8'-9'

Viburnum dilatatum, 8'-9'
 Viburnum opulus, 9'-10'

White Berries

Cornus alba sibirica, 8'-10'
 Cornus stolonifera, 7'-8'
 Myrica carolinensis (gray), 2'-10'
 Pachysandra terminalis, 8"-10"
 Symphoricarpos racemosus, 5'-6'

Yellow Berries

Elæagnus angustifolia, 15'-18'

Black Berries

Amelanchier canadensis, 12'-15'
 Aronia melanocarpa, 8'-10'
 Berberis atrocarpa, 5'-6'
 Berberis verruculosa, 2'-3'
 Cotoneaster acutifolia, 8'-10'
 Ilex crenata bullata, 4'-5'
 Ilex crenata microphylla, 6'-8'
 Ilex glabra, 5'-6'
 Ligustrum regelianum
 Rhamnus cathartica, 9'-10'
 Rhodotypos kerrioides, 4'-5'
 Viburnum acerifolium, 4'-5'
 Viburnum lantana, 15'-18'
 Viburnum prunifolium, 15'-20'
 Viburnum sieboldi, 9'-10'

Deep Blue-black Berries

Berberis gagnepaini, 5'-6'
 Berberis julianæ, 6'-7'
 Berberis triacanthophora, 4'-5'
 Vaccinium corymbosum, 4'-12'
 Viburnum cassinoides, 5'-6'
 Viburnum dentatum, 10'-12'
 Viburnum lentago, 25'-30'

Blue Berries

Ampelopsis heterophylla, 30'-40'
 Callicarpa purpurea (mauve), 3'-4'
 Cornus amomum, 8'-9'
 Symplocos paniculata, 30'-40'

Plants With Distinctive Bark

Acer pennsylvanicum (Striped bark)
 Betula alba (White bark)
 Betula nigra (Papery brown bark)
 Betula papyrifera (Papery white bark)
 Betula populifolia (Creamy bark)
 Carpinus betulus (Blue-gray bark)
 Cornus alba sibirica (Bright red bark)
 Cornus paniculata (Gray bark)
 Cornus stolonifera lutea (Yellow bark)
 Cornus stolonifera (Deep red bark)
 Elæagnus (Silvery bark)

Euonymus alatus (Corky-winged bark)
 Fagus varieties (Gray bark)
 Kerria japonica (Green bark)
 Laburnum vulgare (Green bark)
 Liquidambar styracilua (Corky-ridged bark)
 Platanus orientalis (Spotted creamy yellow bark)
 Rosa lucida alba (Green bark)
 Rosa rubrifolia (Dull red bark)
 Tilia platyphylla aurea (Yellow bark)



American Hemlock, *Tsuga canadensis*, as it grows on Hemlock Hill in the Arnold Arboretum, Jamaica Plains, near Boston

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Long before rock-gardens had their vogue we had the flowering creepers that so delightfully soften terrace walls. Easy to grow; spread rapidly; free from pests. They argue well for their extensive use.

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